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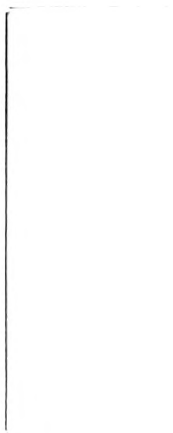
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PROPOSAL  
BOSTON REDEVELOPMENT  
AUTHORITY  
PIER 3 RECONSTRUCTION  
NOVEMBER 9, 1988





PROPOSAL  
BOSTON REDEVELOPMENT  
AUTHORITY  
PIER 3 RECONSTRUCTION  
NOVEMBER 9, 1988







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November 9, 1988

Mr. Paul Reavis  
Boston Redevelopment Authority  
Room 943, City Hall  
One City Hall Square  
Boston, MA 02201

RE: Charlestown Navy Yard Reconstruction - Pier 3

Dear Mr. Reavis:

We are pleased to submit our proposal to the Boston Redevelopment Authority for the above-referenced project.

Maguire Group, Inc. is a multi-disciplinary firm with a staff of over 500 professionals comprised of engineers, planners, architects, scientists and design technicians. Maguire has completed over 4,000 projects involving expenditures in excess of \$5 billion since its founding in 1938. The firm is currently ranked among the top architectural/engineering/planning firms in the U.S.A.

Maguire is proud of its long-standing relationship with the Boston Redevelopment Authority. Since 1963, Maguire has been engineering and planning consultant to the Authority for urban renewal contracts in the South End of Boston. For the past twenty-five years, contracts worth over \$70 million have been completed or prepared for reconstruction. As a result, we are completely familiar with the Authority's procedures, policies and affirmative action requirements.

For this project, Maguire has assembled a team of highly skilled, senior-level professionals from our in-house staff and sub-consultant firms. Mr. E. Allan Reed, the designated project manager, has over 27 years of experience with Maguire's Marine and Planning Departments. His project management experience with Maguire is extensive including the Water Transportation Facilities study, Deer Island and Nut Island for the Massachusetts Water Resources Authority, rehabilitation and underpinning of the granite seawall wharf at the Port of Providence, Rhode Island, and a master planning study for the rehabilitation and expansion of wharf facilities at Ford Island in Pearl Harbor, to name a few.

We are proud to be supported by the following team of sub-consultants: Carol R. Johnson & Associates, Bryant Associates and Marine and Industrial Diving, Inc. This multi-disciplinary team of specialists have worked together on similar projects in the past and, for the Pier 3 project, will demonstrate the same professional care and knowledge that resulted in the successful completion of previous projects.

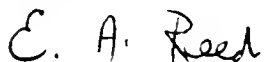


Mr. Paul Reavis  
November 9, 1988  
Page 2

We recognize the importance of this project to the Boston  
Redevelopment Authority and feel confident that our experience  
qualifies the Maguire Group for selection.

Sincerely,

MAGUIRE GROUP INC.

A handwritten signature in cursive script that reads "E. A. Reed".

E. Allan Reed  
Director, Marine Group

EAR/bh







## EXECUTIVE SUMMARY

Maguire Group Inc. is pleased to respond to the BRA for site analysis, design, and related engineering services for the reconstruction of Pier 3.

During the past 50 years Maguire has completed numerous assignments in and around the City of Boston. Our recent and relevant experience includes the Massport Marine Terminal in South Boston, the Massport South and East Jetties Project for the Economic Development and Industrial Corp. of Boston (EDIC), the Rehabilitation of Pier #10 in the Naval Annex in South Boston for the EDIC, The Massachusetts Water Resources Authority Transportation Study and Deer and Nut Island Marine Facilities design for the MWRA.

Maguire Group has extensive working knowledge and experience in dealing with the numerous city and state agencies who are involved in the development and reconstruction process.

Through our years of experience in the South End and other sections of the City, our staff has developed positive working relationships with various department heads and engineering/regulatory professional staff. In addition to providing services to the BRA, Maguire Group Inc. has successfully completed assignments for the Boston Water & Sewer Commission, Boston Department of Public Works, Metropolitan District Commission, Mass DPW, the Massachusetts Water Resources Authority, and the City Conservation Commission, to name a few.

We are particularly proud of our record in working with these Agencies in an effort to reach the goals of the City.

The team members that we have assigned to the project bring many, many years of professional skill and talent. Sub-consultant firms that we have assigned to this project include: Carol R. Johnson and Associates, Bryant Associates, and Marine Industrial Diving, Inc. All team members have worked together successfully in the past and look forward to applying their expertise to this project.

Maguire Group Inc. is prepared to begin immediately on this highly visible assignment. We believe that the team we have assembled has the experience and qualifications required.

The Maguire Team is totally committed to completing the assignment in a professional and expeditious manner.

We look forward to an opportunity to once again serve the City and the BRA.



## AFFIRMATIVE ACTION COMPLIANCE PROGRAM POLICY STATEMENT

This discussion of Maguire's Affirmative Action Program is considerably condensed. We will be happy to submit the complete and official Affirmative Action Compliance Program (AACP) under separate cover if The Boston Redevelopment Authority wishes the opportunity to review it in detail.

Maguire Group Inc. is committed, on a voluntary basis, to take affirmative steps to implement equal opportunity in employment. Our efforts in this regard have been continuous in the hiring and upgrading of minorities and women. The Rehabilitation Act of 1973 and the Vietnam Era Veterans Readjustment Act of 1974 require affirmative action for handicapped persons, disabled veterans, and veterans of the Vietnam Era. Accordingly, throughout the AACP, minorities, women, handicapped persons, disabled veterans, and veterans of the Vietnam Era are referred to as protected classes.

In accordance with the policies established in the AACP, the objectives, requirements, and evaluation procedures are implemented by the following actions: (a) Establish methods to increase the number of protected class employees for employment; (b) Actively seek and consider qualified protected class employees on an equal basis with other qualified employees whenever an opportunity becomes available; (c) Base decisions on employment solely upon promotional decisions solely upon the individual's qualifications as related to the requirements of the position to be filled; and (e) Insure that all other personnel matters such as hiring, compensation, benefits, transfers, layoffs, Company-sponsored training, education, tuition assistance, social, and recreational programs are administered in accordance with the laws regarding the employment of protected classes.

Line management is responsible for the administration of the AACP. Through responsible subordinates, managerial personnel will: (a) Set goals, where required, that are significant, measurable and attainable. These goals shall specifically provide for the correction of under-utilization, if any, of protected classes; (b) Identify problem areas by department, location, job classification, etc. and take remedial action; and (c) conduct periodic reviews of the progress made under the Affirmative Action Compliance Program.

The Company's total AACP is to implement and accelerate equal opportunities for all employees and applicants for employment. Our management, at all levels, is required to make every good faith effort to fulfill this intent.







## INTRODUCTION

The Boston Redevelopment Authority under the City's Harborpark Program has undertaken an ambitious plan to expand recreational opportunities and open valuable waterfront space at the Charlestown Navy Yard. Under the present plan, Pier 3 (constructed in 1893), will be reconstructed and extended to approximately 580 linear feet, providing 35,000 s.f. of additional public recreational area. This valuable addition to the waterfront park will be set aside for boating facilities, fishing areas, public dock space and other recreational uses.

Maguire Group Inc. and our Team of Consultants, as outlined in this accompanying scope of work, propose to collect and review all available documentation relating to the existing structure, to inspect and evaluate the structures' present condition and its capability to support the planned developments. The Team's goal will be to provide the Authority with a clear recommendation, based on all past work at the site, as well as the developments proposed, herein. To achieve this, the Team will review the Authorities goals, programming, budgets, schedules and sequencing of construction.

Accepting past work as a guide only, our Team of specialists will look at this project with an open mind and a fresh perspective, and bring current "state-of-the-art" ideas and innovations into play wherever possible or practical.

Our project proposal has been structured to follow the scope of services outlined in your "Request for Proposal". Each phase of the work will be complete unto itself and from the basis of the subsequent phases as they develop. We have assumed that the Authority will obtain and/or provide access and authorization to review previous Consultants work. Because this project is centered in close proximity to the highly popular National Park Science site and future programs by the BRA, it may well include exciting mixed use projects from the New England Aquarium, Tall Ships port-of-call, New England's Historic Seaport's Educational Boat Building School, and "Spirit of Massachusetts". As a result, our Team considers this project as the catalyst to allow all future programming.

We anticipate through the early site inspections, survey work and design development that conferences with the Authority, regulating agencies and abutting users will require extensive consideration. As plans and ideas are "focused" into specific developments from the preliminary engineering phase through to the preparation of construction Contract Documents, we foresee, as you have outlined, the need for the preparation of supporting documents to permit necessary action to be taken by other Agencies and Commissions. Our Team has "hands on" knowledge of the site conditions having successfully completed studies and construction documents for projects such as the Charles River Dam and use of Piers 48, 49, & 50 at the Charlestown Naval Shipyard as an on-shore construction support terminal for the work now underway at the Deer Island Sewerage Treatment Facilities.

Our project manager will serve as the Teams' coordinator and more importantly its liaison with the Authority. His major task is to provide the necessary



guidance to insure that the project stays on track, within schedule and budget, and that the Authority is fully cognizant of the Team's actions and efforts. A project of this nature changes and has different emphasis as the work unfolds and in this regard it will be the Team's responsibility to advise and inform the Authority of the changing priorities and ideas all with the intent to provide the best solutions and project.



## SCOPE OF SERVICES

### Task 1. Planning Design and Engineering

For the design development phase of this project, the Maguire Team will research and evaluate the available documentation for Pier 3. That data will include past U.S. Navy documents relating to the construction of both Dry Dock #2 and Pier 3. Key to the data collection phase of the proposed work will be to obtain documentation to properly assess the structural integrity of the existing timber bulkheads and their capability to withstand new loadings from any proposed construction. They must also be evaluated to see if new steel sheeting can be installed without losing the stability of the present pier.. Removal of the solid fill area at the Southwest corner of Pier 3 will be studied in detail, particularly as to how that removal will impact the stability of the existing Pier 3 structure. Sampling will need to be taken of the fill material to ascertain if it contains any toxic substances that would inhibit the permitting process and its proper disposal. The design development phase must also include studies to best determine the most appropriate means and phasing to complete the proposed work with a minimum of interruption to on-going park and waterfront activities, as well as, other planned developments for the immediate project area.

Once preliminary studies and evaluations outlined above have been completed and discussed with the Authority and concurrence obtained, the Team will focus its efforts toward preparing preliminary engineering plans, outline specifications and cost estimates. If alternate improvements are feasible they will be fully discussed and developed so that the Authority will have a complete array of facts to make proper decisions. Schematic or concept layouts will also be included that best illustrate the goals and intended use of the completed new work for recreation and public use. All design criteria that forms the basis of the design and other pertinent data relating to construction, operation and maintenance will be tabulated in a design statement report. Graphic and presentation materials, as well as staff support from the Project Team has been in our fee preparation to assist the Authority in presenting the plans to neighborhood or funding groups.

### 2. Construction Contract Documents

Once the "Preliminary Design and Engineering" phase is completed and approved; and on receipt of the Authority's authorization to proceed, the Maguire Team would prepare the construction contract document package. That package will include final construction drawings, project specifications, final construction cost estimate and a final design statement that sets forth all pertinent design criteria and recommendations for operation and maintenance. Design computations in support of the documents will be assembled in a project booklet for the records of the Authority.

As designers, the Team will assist the BRA in the advertising, pre-bid clarification meetings, bid review and evaluations, and submit its recommendation for award of the contract.



3. Drawings and Reports for Public Improvement Commission (PIC), Department of Environmental Quality Engineering (DEQE) or other Agencies.

Although at this time it is difficult to assess what supplemental drawings and reports will be required, we have included as part of our fee an amount to prepare PIC, DEQE and other public agency documents for their approval. These documents will be prepared in accordance with each agency's standards and requirements. Key members of the design team will attend and support the Authority at all public review meetings. Revisions or additions resulting from these sessions will be incorporated, once approved by the Authority in all proper documents.

4. Borings, Test, Land Surveys, Diving and Visual Inspections, and Other Special Investigations.

a) To support the design effort and provide subsurface data Maguire Engineers have developed a soil boring and laboratory testing program, based on our knowledge of the project to date. That program would require ten borings (5 borings on land and 5 borings in the water). It is estimated that the holes will be 70 ft. in depth to refusal and that three (3) of the borings will be extended by coring into the bedrock an additional foot. The boring program is required to establish the depth to which end bearing or displacement piles will be required. Coring of the bedrock will identify the capacity that end bearing piles can achieve in the bedrock. The laboratory testing program in conjunction with the borings is mainly classification testing (ie; sieve analysis, Atterberg limits, etc.) to verify the various soil strata encountered. Soil borings will be accomplished by the C.L. Guild Drilling Co. and soil testing will be performed by Goldberg-Zorino and Associates.

b) Surveys

1. Bryant Associates, Inc. will provide the necessary survey services to the design team. Based on the available documentation of the project facilities, Bryant will conduct current topographic surveys that will locate all surface features and tie them to a project baseline coordinated into the Massachusetts System. Features such as buildings, utilities, and other structures will be checked and updated so that drawings reflect the current status of the site. Elevations will be referenced to Mean Low Water, where appropriate, and grades established for permanent areas and utility inverts.

2. Hydrographic surveys will be undertaken to establish the current depth of water existing at the Pier 3 site. This should provide the Team and the Authority with requirements for dredging or the limitations on vessel size that will use the completed facilities.

3. Property line surveys will be conducted and "taking" on easement drawing limits established where necessary. Key to determining the length of the Pier 3 extension will be locating and identifying the channel or pierhead line.

4. Marine and Industrial Diving, Inc. will perform a comprehensive diver survey of the existing bulkheads and pier facilities which will form the basis of the Team's plans to demolish and remove certain facilities and/or to strengthen and repair other structures. All findings of the surface and underwater surveys will be plotted and illustrated on an "Existing Condition Drawing" and included in the contract documents. Steel sheet piling will measure ultrasonically to determine the extent of corrosion it has experienced.







## PROJECT TEAM

### A. Management Plan

Maguire uses a team concept approach when organizing for planning and design efforts requiring multiple disciplines. The Maguire project team is organized according to the chart preceding the resumes in this section. The team offers experience, ability, willingness and particular expertise in addressing the challenges posed by the Pier 3 Project.

Team leadership will be provided by Mr. E. Allan Reed, Project Manager and Manager of Maguire's Marine Specialty Group. In his role as Project Manager on the Pier 3 Project, Mr. Reed will direct the individual team members into a collective effort. The team concept allows critical input to be identified, anticipated, scheduled and focused upon in order to promote maximum results and optimum team performance. The performance of the design team is enhanced by the resources of Maguire's full-service staff supported by a select group of sub-consultants and specialists.

The Project Manager will direct the overall efforts of the Maguire design team and will have ultimate responsibility for all actions and steps taken during the project period. He will serve as the primary point of contact and communications with the Authority. Additionally, the Project Manager will focus upon the project issues and ensure, through design review exercises, that the conclusions reached are cost-effective, efficient and functional solutions. He will be responsible for overall direction and coordination for all project activities and recommendations. In summary, the Project Manager must assure the execution of Maguire's commitment to the Boston Redevelopment Authority.

### B. Project Team

We have illustrated key design team member assignments in the organization chart shown in this section. Detailed resumes for all team members proposed for this project are included at the end of this section of the proposal.

Mr. E. Allan Reed, Manager of the Maguire Marine Specialty Group, brings to the Project over 27 years of marine design and planning experience. He therefore has an excellent understanding of the waterfront design, land use, local issues, development needs, municipal and state government and federal agencies. Mr. Reed provides an in-depth understanding of maritime issues facing the City of Boston and the Commonwealth of Massachusetts.



In addition to the highly-qualified Maguire personnel that will be assigned to the Project, Maguire has also assembled a Team of sub-consultants and specialists. These include:

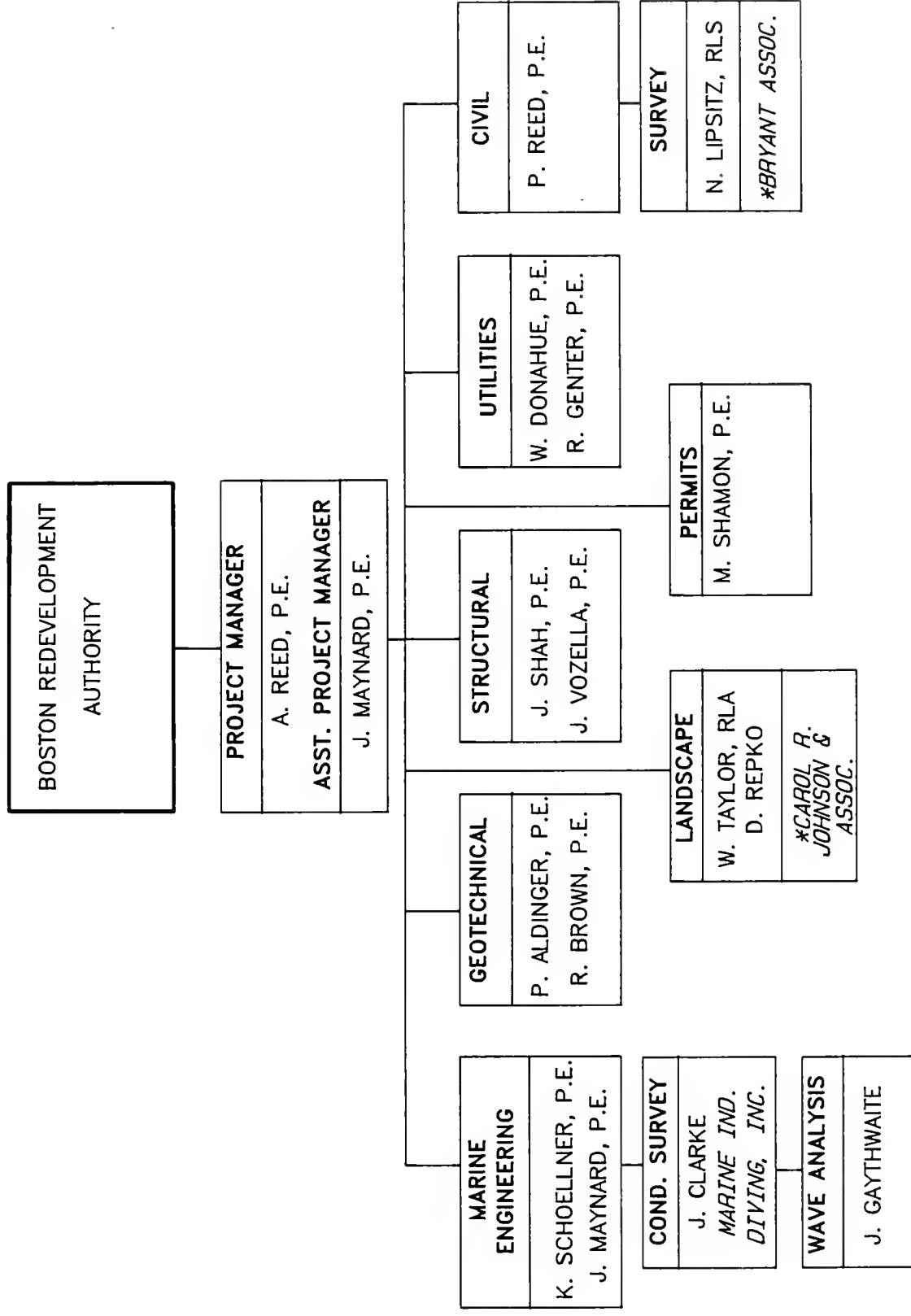
Carol R. Johnson & Associates, Inc. -- Landscape Architects and Site Planners, a woman-owned small business enterprise. The firm has extensive experience in planning and design of private and public projects including Burroughs Wharf in Boston and Shipyard Quarters Marina and Promenade in Charlestown.

Bryant Associates -- Survey and Cost Estimating Consultants, a minority-owned business enterprise. The firm has in-depth experience in working with the public sector including design surveys for a ten acre port facility for Massport and a facility plan for the City of Boston.

Marine and Industrial Diving, Inc. -- A marine diving firm specializing in underwater inspection, construction and repairs. MIDCO has successfully completed numerous projects for public and private clients in the Boston area, including recent and past inspections of Long Wharf.



# PROJECT ORGANIZATION



\*MINORITY BUSINESS ENTERPRISE



E. ALLAN REED, P.E.

POSITION	Manager Marine Services
PROJECT ROLE	Project Manager
EDUCATION	B.S. in Civil Engineering Graduate Work University of Rhode Island
REGISTRATION	Registered Professional Engineer State of Rhode Island Commonwealth of Massachusetts
PROFESSIONAL SOCIETIES	American Society of Civil Engineers Providence Engineering Society National Society of Professional Engineers Society of American Military Engineers

#### PROFESSIONAL EXPERIENCE

Mr. Reed serves as Assistant Vice President, Director of Engineering and Planning for Maguire's Providence office. He is responsible for the general supervision and administration of the Planning, Civil, Marine, and Photogrammetric departments, providing operational and technical guidance to the many varied projects and studies undertaken by these departments. He has been Project Manager for numerous Civil Engineering projects, including dams, water works and flood control projects. He has been engaged in various site and land development projects and been directly responsible for the computations and control layout for various highway and photogrammetric work. He has also been involved with numerous marine related projects involving the design of piers, bulkheads, marinas, shore protection and other waterfront projects, including dredging.

#### Civil Engineering Projects

Mr. Reed has served as Project Manager on many civil projects including:

- o Blackstone River Flood Control Study and the Lower Woonsocket River Flood control Project for the New England Division, U.S. Army Corps of Engineers.
- o Goat Island Bridge and Causeway in Newport, Rhode island.
- o Inspection services for the Corps of Engineers under the National Dam Safety Program of more than 25 dams in the Hawaiian Islands and more than sixty dams in Connecticut and Rhode Island.
- o Developed a phased program of upgrading for the taxiways and runway pavements at Kaneohe Marine Air Corps Station, Hawaii.
- o 4-million-gallon Underground Reservoir for the Providence, Rhode Island Water Supply Board.



E. Allan Reed (Page 2)

- o Automated U.S. Post Office in Providence, Rhode Island.
- o Underground Computer Center for the Industrial National Bank of Providence, Rhode Island.
- o Diamond Hill Reservoir in Cumberland, Rhode Island.
- o Deep River Dam in Norwich, Connecticut.

Marine Engineering Projects

- o Water Transportation Facilities - Site Evaluation, Boston Harbor, MA
- o Design and Construction Administration of pier and marine facilities at Deer and Nut Islands, MA
- o In depth study of various ore handling improvements for the export of minerals at four ports in Peru for the U.S. Agency for International Development.
- o Rehabilitation of more than four miles of steel sheet pile bulkheads at the Naval Air Station, Midway Island.
- o Preparation of bid tender documents for a new six-berth port facility at Port Harcourt, Nigeria.
- o Responsible for master planning study for the rehabilitation and expansion of existing wharf facilities at Ford Island in Pearl Harbor for the Pacific Division, Naval Engineering Command.
- o Was a consultant for the conceptual planning of a floating cargo dock on the Orinoco River in Venezuela for general and bulk cargo.
- o Enlargement of berthing facilities for the State of New Hampshire at Portsmouth, New Hampshire.
- o Rehabilitation of wharf and deepening of berths at the Port of Providence, Rhode Island.
- o Bulkhead and various waterfront improvements at the U.S. Naval Air Station, Quonset Point, Rhode Island.
- o Project Manager for the widening and deepening of the Thames River and pierside dredging and upgrading of waterfront utility systems at the Submarine Base, Groton, Connecticut.
- o Bulkhead repair at the District One Coast Guard Base, Boston, Massachusetts.



JOHN K. MAYNARD, P.E.

POSITION: Project Manager  
Civil and Marina Department

PROJECT ROLE: Engineering Task Leader

EDUCATION: B.S. in Civil Engineering  
University of New Hampshire

REGISTRATION: States of Rhode Island, New Hampshire  
and Louisiana  
Pending in New Jersey and New York

PROFESSIONAL SOCIETIES: American Society of Civil Engineers  
Boston Society of Civil Engineers  
International Society of Soils Mechanics  
and Foundation Engineers

EXPERIENCE:

Mr. Maynard has been employed by Maguire Group Inc., since July, 1972. Duties for the Civil and Marine Department have expanded from Project Engineer to the present position of Project Manager. He has been responsible for the design and engineering of various projects in the areas of transportation, environmental, structural, marine and civil works. His duties involve development and administration of project scope, analysis and design of facilities, economic analyses, preparation of project specifications, cost estimates and construction coordination and management.

Specific airport design projects have included parking aprons and taxiways associates with new C-130 aircraft hangar facilities at Quonset Point State Airport, Rhode Island and taxiway and aircraft parking apron modifications and extension at T.F. Green International Airport, Warwick, Rhode Island. In addition, he was project manager for runway, taxiway and hangar improvements at the U.S. Marine Corps Air Station, Kaneohe Bay, Oahu, Hawaii.

Additional project management responsibilities have included wastewater treatment facilities with associated ocean outfalls in the North Atlantic, Caribbean and Central Pacific; feasibility studies; planning and design of both shallow and deep draft port structures and associated land support systems for roadways, railroads, utilities and shore protection structures.

Mr. Maynard performed analysis, design and project management for a major U.S. Navy port project in Guam, Marina Islands, with total estimated construction costs in excess of \$80 Million. The project included design of port facilities including berth and channel dredging of two wharf sites, breakwater, shore protection, roads, fire protection system, utilities and development of aggregate and armor quarries.



KLAUS SCHOELLNER, P.E.

POSITION	Assistant Vice President Senior Department Manager - Marine
EDUCATION	Civil Engineering Technische Universitat Berlin, Germany
REGISTRATION	Registered Professional Engineer Commonwealth of Massachusetts State of New Hampshire
PROFESSIONAL SOCIETIES	American Society of Civil Engineers Boston Society of Civil Engineers

PROFESSIONAL EXPERIENCE

Mr. Schoellner is manager of the Civil Department and is responsible for design and supervision of all work there. In addition, he was acting project manager on major projects such as the new Ocean Terminal at Onne, Nigeria and the new Marine Terminal for Massport in Boston.

Mr. Schoellner has conducted condition surveys at the South and East Jetties for Boston's E.D.I.C. in Boston Harbor, and is Technical Director for the on-island and on-shore conceptual design and marine operations project for the Massachusetts Water Resources Authority.

He was recently project manager for waterfront lobster fleet improvements in Beverly and Saugus, Massachusetts and at Pier 10 at the Boston Marine Industrial Park. The projects in Saugus and Boston were design projects while that in Beverly was a study. They involved all involved unloading, berthing and bait storage elements.

Mr. Schoellner's waterfront and marine experience include Petrochemical Port Facilities, Iran; Fishing Port in Newport News, Virginia; Mystic Wharf Extension, Boston, MA; Charles River Dam and Navigation Locks, Boston, MA; and Mystic River Pumping Station, Boston, MA. He has had considerable experience as design and field supervisor of marine structures throughout the world, including Europe, the Middle East and Africa.

From 1975 to 1977 served as the head of the Civil Engineering Department at Crest Iran's (a subsidiary) offices in Teheran, Iran. He was responsible for all civil work in the design of crude oil process plants, oil and gas pipelines, compressor stations, gas injection projects and LPG plants. Furthermore, he had the sole responsibility for projects of a heavy civil nature such as jetties and material handling depots. In addition, he served as Chairman of the Review Board of Crest, Iran which involves him in all of Crest Iran's projects.

From 1972 to 1975, he served as project structural engineer and project manager. His experience includes design work on various types of reinforced concrete and steel structures. He was responsible for the design of projects



such as the CE KSB Pump Company Inc. Manufacturing Facility in Newington, New Hampshire; P.F. Avery Nuclear Reactor Internals Plant in Newington, New Hampshire; Washington Metro Subway in Washington, D.C.; UPS Distribution Center in Hartford, Connecticut; office building for Massachusetts Electric Company; extension of manufacturing facilities for C-E Avery in New Hampshire; and seismic evaluation of an existing army hospital at Fort Jackson, South Carolina.

Prior to joining Maguire he was responsible for the design of commercial and institutional buildings such as Bay State West in Springfield, Massachusetts; Green point Hospital in Brooklyn, New York; and several other office and educational buildings.

Mr. Schoellner's early experience also included providing structural design and field supervision for several bridges, subway structures, underground reservoirs, office buildings and earth retaining structures.

#### PUBLICATIONS

"Variations in Planning Concepts for a Nigerian Port," In Ports '83, New Orleans, Louisiana, March 1983

"Rehabilitation of Concrete Structures," Boston Society of Civil Engineers Seminar on Rehabilitation of Waterfront Structures, March 1984



PAUL B. ALDINGER, Ph.D., P.E.

POSITION	Sr. Dept. Manager, Geotechnical
PROJECT ROLE	21E Analysis
EDUCATION	Ph.D. in Civil Engineering University of Rhode Island (1983) M.S. in Civil Engineering University of Vermont (1973) Naval Civil Engineering Officers School (1970) B.S. in Civil Engineering University of Vermont (1969)
REGISTRATION	Registered Professional Engineer State of Rhode Island State of Vermont State of Louisiana
PROFESSIONAL SOCIETIES	Earthquake Engineering Research Institute National Water Well Association American Society of Civil Engineers, Rhode Island Section Past President National Society of Professional Engineers, Rhode Island Section Director American Geophysical Union Tau Beta Pi Chi Epsilon

PROFESSIONAL EXPERIENCE

Dr. Aldinger has been employed by Maguire Group Inc. since June, 1973 and has been involved in a wide range of civil engineering projects in areas such as groundwater studies, solid waste handling, disposal and/or recovery systems; power generation facilities; pollution control facilities; waterfront development and building construction. Dr. Aldinger's involvement has been concentrated in the geotechnical analysis and design of these projects. As Assistant Director of Geotechnical Engineering, he assists with the geotechnical aspects of all projects completed by the firm.

Dr. Aldinger recently received a Ph.D. degree from the University of Rhode Island. His dissertation topic involved the development of a method for the stochastic modeling of soil profiles and mass transport through those profiles to be utilized in the solution of groundwater flow problems. He developed a computer program to perform this work and has familiarity with the numerous computer programs developed by or adapted to the in-house facilities at Maguire.



Dr. Aldinger has provided the geotechnical design and analysis for numerous Environmental Engineering projects including the \$6.5 million interceptor and lateral sewers in Woonsocket, Rhode Island; the 345 KV cable crossing the Charles River for Boston Edison Company, a force main crossing of the Yantic River in Norwich, Connecticut; the \$2.2 million interceptor sewer along the Shetucket River and rail lines in Norwich, Connecticut; and \$4.5 million in improvements to the Waste Water Treatment Facility for the Town of Westerly, Rhode Island. Dr. Aldinger was responsible for on-site inspection as interim Resident Engineer on an \$8 million improvement project to the Waste Water Treatment Plant in East Providence, Rhode Island; and was the Assistant Resident Engineer on a \$9 million improvement project to the plant in Norwich, Connecticut.

Dr. Aldinger's experience in waterfront construction includes the geotechnical analysis and design for a \$6.5 million port expansion at the Municipal Wharf in Providence, Rhode Island. A related project involves modification of an existing gravity wall to allow deepening of the adjacent berth using small diameter piling drilled through the seawall. In addition, Dr. Aldinger was responsible for the design of a \$3 million extension of the New Hampshire Port Authority Terminal in Portsmouth; a feasibility study and preliminary design of a \$7 million roll-on/roll-off facility at Portsmouth, New Hampshire; the lateral transfer and bulkhead system at the shipyard in Newport, Rhode Island; the proposed waterfront improvements at the Port of Fall River, Massachusetts, including recommendation of system alternatives; the perimeter levee for the tank farm in Texas that is the part of the \$700 million Seadock Project.



ROBERT ARTHUR BROWN, P.E.

POSITION: Principal Geotechnical Engineer

PROJECT ROLE: Geotechnical

EDUCATION: B.S. and M.S. in Civil Engineering  
Northeastern University  
Graduate School Courses in Clay  
Mineralogy  
Map Interpretation and Photogeology  
Wichita State University

PROFESSIONAL SOCIETIES: American Society of Civil Engineers  
Boston Society of Civil Engineers  
Section of ASCE  
Chi Epsilon Fraternity  
Earthquake Engineering Research  
Institute

PROFESSIONAL EXPERIENCE:

Mr. Brown has been employed by Maguire Group Inc. as a geotechnical engineer since March, 1972 and is responsible for soils and foundations engineering for design projects in the Transportation, Environmental, Buildings, Power and Civil Divisions. The work performed includes directing subsurface exploration programs, field testing, analysis of field data, development of geotechnical design criteria for building and equipment foundations, waterfront facilities and earth structures; preparation of project specifications pertaining to geotechnical engineering; and construction coordination and inspection. He has extensive experience with both shallow and deep foundations as well as detailed design of foundations subject to vibrations.

Mr. Brown has performed geotechnical services for many harbor/river crossing projects including the 345 KV cable crossing the Charles River for Boston Edison Company. In addition, he worked on the Braintree-Weymouth Interceptor Sewer Crossing of the Fore River and Mill Cove in Weymouth, Massachusetts and was Project Manager on the Port of Providence Rhode Island Rehabilitation Project.

Transportation experience includes the Reading DPW Facility and direction of the geotechnical program for the Capital Center project in Providence, Rhode Island. The program encompassed geotechnical investigations, testing and preparation of reports and final design. Other transportation projects include development and execution of the geotechnical work for the I-93 Route 16 Interchange in Medford, Massachusetts and a portion of the Route 25 project in Bourne and Plymouth, Massachusetts.

Mr. Brown has provided the geotechnical analysis and design for industrial types of projects such as the Nife Inc. manufacturing plant in Lincoln, Rhode Island; power generation plant modifications for Big Three industries in Bayport, Texas; Bahama Cement Company in Freeport, Bahama; modifications to the Weyerhaeuser Plant in Idabel, Oklahoma; foundation evaluation of coal pulverizers at the New York State Gas and Electric Gaudy Station in Binghamton, New York; and design of a shredder foundation for the city of Pawtucket, Rhode Island.



JITENDRA C. SHAH

POSITION                      Structural Department Manager

EDUCATION                    B.S. in Civil Engineering  
                                  Bombay University  
                                  M.S. in Structural Engineering  
                                  West Virginia University

REGISTRATION                State of Rhode Island (1975)

PROFESSIONAL SOCIETIES    American Concrete Institute  
                                  American Institute of Steel Construction

PROFESSIONAL EXPERIENCE

Mr. Shah has been working for Maguire Group Inc. since 1971. He is responsible for engineering design development, directing the production of design and drafting in the structural department, project coordination and specification writing. His various engineering assignments include:

- . Project structural engineer for 6-story, steel frame, office building (160,000 SF) in Providence, RI, for General Services Administration.
- . Project structural engineer for 4-story, concrete frame structure for East Providence City Hall in East Providence, RI. The structural framing utilized flat plate floors and concrete columns.
- . Resource Recovery Facility for Hartford, CT. The project required 180 ft. clear span steel frames, pile supported tipping floor, extensive research and design of very sophisticated tipping floor subjected to front-end loader traffic. Two other resource recovery projects in Detroit, MI, and Honolulu, HI, are being designed at present under the supervision of Mr. Shah
- . Project structural engineer for ammunition wharf for U.S. Navy in Guam. The wharf structure consists of large concrete caissons which are prefabricated off-site, then floated and sunk in place.
- . Project structural engineer for 600 feet extension of existing wharf in Portsmouth, NH. The project includes 100 ton crawler crane.
- . Structural engineer for ship repair facility for Bath Iron Works, Portland, Maine. The project included 60' x 60' mooring platforms to accommodate the 81,000 ton capacity floating dry dock, including mooring connections and modification to the floating dry dock hull to accommodate the two point mooring system.
- . Project structural engineer for oil to coal conversion of existing cement kilns. The project involved design of coal unloading area, coal conveyors, 350 ton capacity coal bunker and its supports, pulverizers and various other heavy equipment foundations, and coal preparation building for indirect firing of coal.



- . Project structural engineer for replacement of 500 ton surface extended economizer supported from roof structure, for a recovery boiler in a paper mill. The project also involved removal of existing laminaire air heaters, adding new steam coil heaters and numerous changes in existing ductwork and breeching.
- . Project structural engineer for 9-story precast prestressed parking garage.
- . Project structural engineer for 350-feet clear span hangar for U.S. Navy at Subic Bay, Phillipines. The project included heavy bridge crane and monorails and was located in high risk seismic zone.

Various other projects include structural design of a recovery boiler building for a paper mill, a hangar for C-130 aircraft, sewage treatment facilities, housing complexes, school and office buildings in reinforced concrete, steel, timber and masonry.



JOHN R. VOZELLA, P.E.

POSITION	Principal Structural Engineer
EDUCATION	B.S. in Civil Engineering M.S. in Structural Engineering Northeastern University
REGISTRATION	Registered Professional Engineer Commonwealth of Massachusetts, 1975
PROFESSIONAL SOCIETIES	American Society of Civil Engineers Boston Society of Civil Engineers
PROFESSIONAL EXPERIENCE	

As a structural engineers with Maguire Group Inc., Mr. Vozella has provided structural design for various projects such as office buildings, waterfront and marine structures, commercial and industrial buildings, schools, sewage treatment plants and underground structures.

Projects include:

- Deer Island Pier Design for Mass Water Resources Authority
- Massport North Jetty Renovation Project
- Wilshire Vermont Subway Station, Los Angeles, CA
- Combustion Engineering Headquarters and Building No. 2, Stamford, CT
- Digital Equipment Corporation Office & Light Manufacturing Facility, Burlington, VT
- D.W. Mann Office & Engineering Facility, Burlington, MA
- CE-KSB Pump Co. Manufacturing & Test Facility, Newington, NH
- Office & Service Center for the Massachusetts Electric Company, Malden, MA

He has had the responsibility as project structural engineer for the Charles River Marginal Conduit Project - Pumping Station, Chlorination and Detention Building for Consolidated Papers, Inc., Wisconsin Rapids, Wisconsin; Fall River Wastewater Treatment Facility in Fall River, Massachusetts; Vent Shafts R-16 and R-17 on the Red Line Rapid Transit Line in Boston, Massachusetts; 14-story Classroom and Library Building for Boston State College; Norwich, Connecticut Wastewater Treatment Plant; new addition to Davol, Inc., Cranston, Rhode Island; and was responsible for the foundation design for the Dunfey Family Motel in Philadelphia, Pennsylvania, and the Georgetowne Elementary School in Boston, Massachusetts.



WILLIAM M. DONAHUE, P.E.

POSITION: Acting Chief Electrical Engineer

EDUCATION: Masters Business Administration -  
Concentration in Computer Science  
Bachelor of Science in Electrical  
Engineering

REGISTRATION: Professional Engineer - Rhode Island

PROFESSIONAL EXPERIENCE:

Mr. Donahue offers 18 years of Electrical Engineering experience through positions of increasing responsibilities and diverse functions. He has a significant record of accomplishment in the design and installation of instrumentation and control systems.

Mr. Donahue was responsible for the design, installation, and maintenance of all electrical systems in a chemical plant with a staff of 700 in 10 production buildings. Included in his responsibilities was supervision of staffs of engineers, technicians, and instrument mechanics.

Also responsible for all plant electrical power systems including the design and installation of main substations, transmission lines and building unit substations, lighting systems and HVAC equipment, power generators, and security and safety systems.

Control systems included instrumentation to control the process in: reactors, both stainless and glass pressure vessels; dryers; distillation columns and other chemical plant equipment, using state-of-the-art microprocessor based control systems.

Mr. Donahue has also been responsible for the following at this chemical plant.

- o Developed a unique dual probe system for 1000 gallon vessels that substantially increased batch yields on one of the major product lines.
- o Automated a methanol recovery still that reduced batch cycle time from 16 to 3 hours while increasing the recovery yield.
- o Reduced drying costs by devising a system that cut in half the steam required to dry pigment material resulting in a cost savings of \$400,000.
- o Designed and installed: pushbutton systems, control stations, interlock systems and other first and second generation electrical control systems.
- o Wrote specifications, requested bids and acted as project manager for the installation of a complete underground 23 KV transmission and 5 KV distribution system.
- o Developed a Preventative Maintenance system that reduced downtime on crucial electrical systems.



- o Installed an infra-red scanning system to detect potential component failure.
- o Designed a new transformer system that prevented an extensive plant shutdown.
- o Worked with electrical contractors to specify installation requirements.
- o Completely redesigned an obsolete power system and installed a system with the capability and capacity for growth.
- o Supervised contractors and in-house electrical maintenance personnel on installations.



ROBERT E. GENTER, P.E.

POSITION Building Mechanical Department Head

EDUCATION B.S. Engineering, 1951  
U.S. Naval Academy

REGISTRATION State of Arizona  
State of Connecticut  
State of Florida  
State of Georgia  
State of Illinois  
State of Maine  
Commonwealth of Massachusetts  
State of Michigan  
State of Nebraska  
State of New Hampshire  
State of New Jersey  
State of Rhode Island  
State of Texas  
State of Utah

PROFESSIONAL EXPERIENCE

Mr. Genter has over 35 years experience as Mechanical Department Head for consulting firms in Phoenix, Arizona and Boston, Massachusetts in addition to running his own mechanical engineering consulting office in Rhode Island. His experience is extensive in high tech and light manufacturing industrial design as well as in commercial and hospital design. His specialty is energy conservation.

HIGH TECH AND INDUSTRIAL DESIGN

Mr. Genter was responsible design engineer for clean rooms and laboratories for silicon and gallium arsenide semiconductor manufacturing facilities. His engineering design experience includes major, on-line computer centers, computer manufacturing facilities, environmental test facilities, and metal plating, stamping and printed circuit board facilities. Among the clients served are Ampere Electronics Corp., Division of Philips, Digital Equipment Corp., Exxon U.S.A., Gillette Safety Razor Division, The Globe, W.R. Grace, Leviton, M/A COM, New England Telephone Company, Qualitex, Raytheon, Teknoe Apex, Texas Instruments, and Wang Laboratories.

COMMERCIAL

Designs for various commercial facilities include office building, banks, warehouses, shopping centers, TV broadcasting studios and utility company maintenance centers. Commercial clients include Bank of Boston, Boston Edison, CVS, Eastern Utilities Associates, Marathon Development Corp., Outlet Broadcasting (WJAR-TV), Outlet Department Stores, Pawtucket Institution for Savings, Purity Supreme, Reynolds Development Co., Rhode Island Hospital Trust, and WBZ-TV, Group W.



PETER B. REED, P.E.

POSITION: Sr. Engineer, Environmental  
PROJECT ROLE: Civil  
EDUCATION: B.S., Civil and Environmental  
Engineering  
Cornell University  
REGISTRATION: Registered Professional Engineer  
State of Colorado  
State of Alaska

PROFESSIONAL EXPERIENCE:

Mr. Reed is a Project Engineer in Maguire's Civil Division. He has been involved with engineering aspects of land development for commercial sites, subdivisions and office parks. Specific responsibilities included general site analysis, site grading, drainage reports, roadway design, boundary closures and the design of water, sewer and drain lines.

He has also designed underground piping, storm and sanitary sewers, oily water and other miscellaneous chemical drains, layed out firewater system, and designed roads at Gaviota Gas Plant, Santa Barbara, California.

Mr. Reed has designed culvert batteries, gravel roads, drill pads gravel pits, and water reservoirs. He wrote studies of future gravel requirements and costs; wrote trends, change orders, and estimates for the ARCO Kuparuk Oil Field on the North Slope, Alaska.

He designed roads, railroad spurs and crossings at the Solvent Refined Coal Plant in Morgantown, West Virginia, and has used the HEC II water surface profile to model rivers.

His recent project experience includes:

- o Rte. 93/16 Interchange, Project Engineer for highway reconstruction.
- o City of Peabody, MA, Project Manager for major intersection redesign and signalization.
- o Beaver Brook Flood Mitigation, Project Engineer for \$4-million flood prevention project for the Metropolitan District Commission, Boston, MA.
- o Massport Logan Express waiting room, Framingham, MA, performed site design and construction inspections.
- o Douglas Transfer Station, Douglas, MA, Project Engineer for the design of new transfer station.
- o Pa-Li Wastewater Treatment Plant, Taiwan, Project Engineer for this 844 mgd wastewater treatment plant.



MARK SHAMON, P.E.

POSITION: Sr. Engineer

EDUCATION: B.S. Civil Engineering (Magna Cum Laude)  
University of Lowell  
M.S. Soils and Materials  
Pennsylvania State University

REGISTRATION: Professional Engineer  
State of New Hampshire

PROFESSIONAL EXPERIENCE:

Mr. Shamon is employed by Maguire as a lead project engineer for the Civil Division. In the course of his employment with Maguire Group Inc., Mr. Shamon has developed an acute awareness of the procedures, permits, and regulations governing publicly funded and environmentally sensitive civil engineering projects.

Prior joining Maguire, Mr. Shamon was employed as a Research Assistant with the Pennsylvania Transportation Institute, assigned to the Pavements and Materials section. Areas of research included pavement management systems, roadway maintenance, and methods and equipment for measuring pavement conditions. He also performed laboratory and field evaluation of a variety of bituminous (hot mix and cold recycled) and portland cement concrete pavements and materials.

Mr. Shamon's project experience includes:

- o Town of Saugus Lobsterman's Landing; responsible for developing plans, specifications and estimates.
- o Hingham Harbor Boat Launching Facilities; responsible from design, specifications and permitting.
- o Mass. Water Resources Authority, Pier and Marine Transportation Facilities at Deer and Nut Islands; responsible for geotechnical and marine design.
- o I-93/Rt.16 Interchange, Medford, MA; responsible for geotechnical analysis under difficult soil conditions.

PUBLICATIONS AND PRESENTATIONS:

"Preliminary Design for Open-Graded Sub-base at the Pavement Durability Research Facility" with David A. Anderson, Principal Researcher in Pavements and Materials and Gary L. Hoffman, Director of Bridge and Highway Technology, Pennsylvania Department of Transportation (1984), for PA DOT.

"Premature Failure of Permeable Sub-base Pavement Sections Incorporating Geotextiles." Gary L. Hoffman, Principal Author, Director of Bridge and Highway Technology, Pennsylvania Department of Transportation. Presented at the Seminar on Recent Geotechnical Advances, Harrisburg, Pennsylvania, April, 1984.



WILLIAM TAYLOR  
Associate Vice President

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Professional Experience

William Taylor is an Associate Vice President at Carol R. Johnson & Associates, Inc. Between 1974 and 1979 Mr. Taylor taught at the University of Illinois in a joint appointment with the Department of Landscape Architecture and the Housing Research and Development Program. While at the University, he managed research contracts involving resident participation in the design for neighborhood rehabilitation and public housing site improvements, developed courses in park and playground design, citizen participation in design, and site planning for multi-family and elderly housing. He is the author of two reports on design criteria for the elderly and one article on park design and neighborhood renovation. Mr. Taylor worked as a landscape designer for Carol R. Johnson & Associates, Inc. between 1971 and 1974, and prior to 1971 he worked as a landscape architect in Pennsylvania and North Carolina for four years. He rejoined Carol R. Johnson & Associates, Inc. in 1979.

Mr. Taylor is currently overseeing early site preparation design for the new Emerson College campus in Lawrence, MA. He is also currently serving as project director for riverfront parks and urban design work related to the Hartford I-91/I-84 roadways project. He has been designated project director for CRJ&A's involvement in Boston's Central Artery and Third Harbor Tunnel.

His work at Carol R. Johnson & Associates has included project management for a number of other urban site rehabilitation projects in the Boston area. He served as project coordinator for site development of the Lechmere Canal and Square project in East Cambridge, MA, a ten-acre mixed-use development of housing, open space and commercial use surrounding a restored 19th century industrial canal. As project administrator, he directed landscape design and development, coordinated the work of associated development with park design, and worked closely with city administrators and the East Cambridge Neighborhood Task Force. He also served as project director for landscape improvements to Bulfinch Square, an historic East Cambridge, MA courthouse square; and for site planning and improvements for Somerville Comprehensive High School, City Hall and Library, Somerville, MA.



WILLIAM TAYLOR  
(Continued)

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He has directed the Shipyard Quarters Marina and public open space projects at the former Charlestown Navy Yard site in Boston, MA; and the East Cambridge Roadway Improvements project in East Cambridge, MA.

Education

Harvard University, Cambridge, Massachusetts, Master in Landscape Architecture, 1974

North Carolina State University, Raleigh, North Carolina, Bachelor of Landscape Architecture, 1968

Professional Registration

Registered Landscape Architect in Massachusetts



DONNA A. REPKO  
Landscape Architect

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Professional Experience

Donna Repko joined the professional staff of Carol R. Johnson & Associates, Inc. as a Landscape Architect in the summer of 1987. For two years prior to this time, Ms. Repko was a landscape designer with an internationally recognized architectural firm in Cambridge, MA. While there she assisted with site analysis, design, and development for a variety of corporate, institutional, and commercial projects, among them the CIGNA Corporation in Bloomfield, CT; The Egyptian Museum, Cairo, Egypt; Roc Harbor, North Bergen, NJ; Florida International University Master Plan, Miami, FL; and New England Center, Durham, NH. Additional professional experience includes a position with a Boston, MA architectural firm; a position as supervisor of the Graphics Unit within the Office of Planning for Broward County, Fort Lauderdale, FL; and positions with firms in Fort Lauderdale, FL, Tucson, AZ, and Waterbury, CT.

At Carol R. Johnson & Associates, Inc. Ms. Repko is a key team member responsible for design studies, construction documents and specifications, site supervision, and client coordination. She is currently managing three projects on Cape Cod: the Tarr Residence in Woods Hole, Windchime Point in Mashpee, and Ryders Hill in Chatham. All three projects have been under her supervision from preliminary design and will remain so through construction. Design documents and field supervision are underway for the Tarr Residence, with construction of a tennis court, swimming pool, new garage and gardens to take place during the spring of 1989. Design documents and construction supervision are also underway for planting of the first 40 units of Windchime Point, a 160-unit condominium development. For Ryders Hill, a 60-unit condominium development, Ms. Repko has prepared planting and erosion control plans.

Ms. Repko has also prepared design documents for Baker Chocolate Mills in Dorchester, MA, and Crossley Hall on the campus of the Northfield Mount Hermon School in Northfield, MA.



DONNA A. REPKO  
(Continued)

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Education	University of Arizona, Tucson, AZ, Bachelor of Landscape Architecture, 1983
	University of Connecticut, Storrs, CT, Studies in Environmental Design, 1977
Related Academic Experience	Three-month study of historical preservation, Mexico City, Mexico, 1981





**NAME:** James F. Clark

**POSITION:** President

**EDUCATION:** Massachusetts Institute of Technology, Cambridge,  
Massachusetts, September 1964 - 1966.

Harvard College, Harvard University, Cambridge,  
Massachusetts, Bachelor of Arts, September 1966 - August 1969.

Boston University, Boston, Massachusetts  
September 1969 - November 1970.

**FELLOWSHIP:** Richard W. Irving Fellowship presented  
annually to the outstanding graduate student in marine  
sciences attending a New England university, May 1970.

**EXPERIENCE:** Marine & Industrial Diving, Inc.  
present

President: administrative responsibilities, project  
management and engineering.

CIDCO of New England, Inc.  
1981 - 1985

President: administrative responsibilities, project  
management and engineering.

J. F. Clark Consulting  
Independent Consultant; 1976 - 1981

Consulting engineer designing products and proprietary  
systems for nondestructive testing.

TCE Incorporated, Boston, MA  
President, 1971 - 1981

Marine biologist and founder of company specializing in  
marine and environmental consulting services; ultimately  
reorganized as J. F. Consulting.





U.S. Naval Academy, Annapolis, MD  
Assistant Professor, 1972 - 1974

Teaching and research in oceanography.

U.S. Naval Academy, Annapolis, MD  
Instructor, LT. USNR

Teaching and research in oceanography.

Harvard University  
Teaching Assistant (faculty appointment), 1970 - 1971.

Teaching in natural sciences and marine-related courses.

**PATENTS:**

"Lightweight Readily Portable Underwater Habitation and Method of Emplacement": 3,706,206; December 1972.

"Device for Underwater Observation": 3,879,953;  
April 1975.

"Device for Shallow-Water Bathymetric Profiling";  
patent pending.

"Method and Apparatus for Perming Inspections and Repairs on Structures in the Marine Splash Zone";  
patent pending.

"Device for Underwater Radiography"; disclosure in preparation.

**EQUIPMENT &  
DESIGNS:**

Inspection System for internally coated pipelines.

Underwater strain gauge installation and monitoring system.

Grouting technique for submerged pilings.

Device for relative sound velocity measurements in thin metal specimens.

Proprietary design for underwater thickness gauging device.



*Underwater flaw detection system.*

*Diver-operated camera system for interface with computerized image-analyzer for evaluation of corroded surfaces.*

*System for acoustic emission evaluations of offshore structures.*

*Proprietary design for underwater thickness gauging device.*

*Design for underwater thickness guage presently marketed by Panametrics Inc., Waltham, MA.*

*System for evaluation flatness of thin metal stampings.*

*Underwater X-ray system for wood piling evaluation.*

*Underwater X-ray system for submarine cable.*

*Air-monitoring system for OSHA approved breathing air in nuclear facilities.*

*Miniature submersible load cell for tow tank operations.*

*High frequency inhalation system for emergency medical resuscitation.*

#### **PUBLICATIONS & REPORTS:**

- 1981      *"An Inflatable Underwater Habitat"; Association of Diving Contractors, Symposium '81; pp.1-8; 4 fig.*
- 1980      *"Underwater Thickness Gauging Using Ultrasonic Technique"; Association of Diving Contractors, Symposium '80; pp. 1-6; 6 fig.*
- "A New Device for Turbid Water Photography"; Journal of Coastal and Marine Science. (accepted for publication)*
- 1974      *"A Preliminary Baseline Environmental Survey of York Harbor, Maine"; prepared for the U.S. Army Corps. of Engineers, New England Division; pp. 1-42, tab., photo.*
- "A Preliminary Baseline Environmental Survey of the Kennebunk River in Maine"; prepared for the Metropolitan Corps. of Engineers, New England Division; pp. 1-45, tab., photo.*





- 1972      *"Ecological Investigations and Structural Observations in Boston Harbor"; report prepared for the Metropolitan District Commission, Commonwealth of Massachusetts; pp. 1-42; AP. A-E; 10 fig.; 7 ch.; 2 tab.' 13 photo.*
- 1971      *"Response of a Shallow Benthic Fauna to Municipal Sewage Effluent"; Abstract Voume, Second National Coastal and Shallow Water Research Conference, p. 42.*
- 1969      *"The Stelleroida of Easter Island",; The Smithsonian Institution, Washington, D.C. (accepted for publication)*



# BRYANT ASSOCIATES, INC.

## NORMAN I. LIPSITZ

Associate/Chief of Surveys

## EDUCATION/REGISTRATION

A. E. Wentworth Institute

Registered Land Surveyor in the States of Massachusetts, Rhode Island and Connecticut

MEMBER: American Congress on Surveying and Mapping  
Massachusetts Association of Land Surveyors  
and Civil Engineers

## EXPERIENCE

Mr. Lipsitz's professional career spans more than 18 years of experience in all phases of land surveying.

At Bryant Associates, Inc., Mr. Lipsitz is the Chief Surveyor responsible for all field survey personnel, deed research, calculations, preparation of right-of-way drawings, property plans and related surveying requirements associated with various projects undertaken by the firm. Recent projects under his direction include the surveys for the North Section of the Central Artery for the Massachusetts Department of Public Works, the Columbia Point Housing Improvements for the development team, the North Station Improvement Project for the Massachusetts Bay Transportation Authority and several private development projects.

Mr. Lipsitz supervises the activities of Bryant Associates five (5) survey parties, including scheduling, coordinating the reduction of field notes and plotting of the field information.

Prior to joining Bryant Associates, Inc., Mr. Lipsitz was responsible for the surveying for the Southwest Corridor Project (Orange Line Relocation) for the Massachusetts Bay Transportation Authority. This involved surveying of existing conditions, surveying of property lines for the proposed takings and preparation of all right-of-way drawings required.



JOHN GAYTHWAITE, P.E.

POSITION: Consulting Engineer

EDUCATION: B.S. Civil Engineering  
Northeastern University, Boston, MA  
Continued Ed. - Harbors, Ports & Offshore Terminals  
Short Course, January, 1985  
U.C.L.A., Berkeley, CA

QUALIFICATIONS

Civil/Structural Engineer with broad background in the design of marine structures both fixed and floating including naval architecture applications and design of special purpose structures as well as traditional civil engineering works. Experienced project manager, author, and lecturer with professional registration in several states.

PROFESSIONAL

Registered Professional Engineer in the following states:

Maine	No. 3411	Structural
Massachusetts	No. 28166	Structural
New Hampshire	No. 4496	Civil/Structural
Oregon	No. 8752	Civil
Louisiana	No. 19979	Civil/Structural

AFFILIATIONS

American and Boston Society of Civil Engineers, M.  
Society of Naval Architects and Marine Engineers, A.M.  
Marine Technology Society, New England Section  
Permanent International Association of Navigation Congress, M.

PUBLICATIONS AND HONORS

Author of numerous technical publications.

Member of BSCE Waterways, Ports & Coastal Committee, 1986 to present, elected Vice-Chairman 1988-89/

Councillor: New England Section of the Marine Technology Society, 1978-1981.

Member of panel HS-3 of Society of Naval Architects and Marine Engineers Hull Structure Committee, 1976.

Guest lecturer on various aspects of marine civil engineering at several universities and professional society meetings; details available upon request.



## PROFESSIONAL EXPERIENCE

### Maritime Engineering Consultants, Inc.

President and founder of consulting engineering firm specializing in marine civil and structural engineering.

### Maquire Group Inc.

Project Manager, design of new shipyard facilities for Bath Iron Works Corporation at Portland, Maine including floating dry dock mooring system, 600' outfit and repair pier, dredging, and restoration of 1000' existing berthing pier and installation of new gantry cranes. Project Manager for reconstruction of Nantucket Ferry Terminal at Nantucket, MA for Wood's Hole, Martha's Vineyard, and Nantucket Steamship Authority. Project included design of two ferry slips, filled bulkhead wharf, dredging, site layout and terminal building. Design and consultation on various other marine/civil engineering projects.

### Fay, Spofford, & Thorndike Engineers, Inc.

Project Engineer for design of ferry terminal structures including transfer bridge, pier, and dolphins at Vineyard Haven, MA. Design of airport runway approach structures, Logan Airport, Boston, MA.

### Parsons, Brinkerhoff, Quade & Douglas, Inc.

Project Engineer for design of 1000' container terminal wharf and crane trackage at Castle Island, Boston, MA.

### Crandall Dry Dock Engineers, Inc.

Project Engineer for design of 81,000 ton capacity floating dry dock for the Port of Portland, Portland, Oregon. Project Engineer for study to determine size and type floating dry dock for Vancouver Harbor, B.C.. Project Engineer for design of 415' long basin dry dock Les Mechin P.Q.; 1500 ton capacity new section for floating dry dock, Boma Zaire. Two 200 ton capacity marine railways for Saudi Arabia; offshore mooring for 20,000 ton floating dry dock in straits of Sumatra. Also, project engineer for various other waterfront structures including piers, berthing facilities, seawalls, and ship transfer systems. Inspection of several dry docks under U.S. Navy MIL-STD. 1625-A dry dock safety certification program.







## FEE PROPOSAL

### Tasks

1	\$ 75,064.00
2	\$102,931.00
3	\$ 36,912.00
4	\$ 45,200.00
5	\$ 4,690.00

Sub Total	<u>\$264,797.00</u>
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### Sub-Consultants

Landscape Architect	\$ 15,850.00
Topographic, Hydrographic Surveys	\$ 4,316.00
Underwater Diver Inspection	\$ 12,150.00
Borings and Laboratory Testing	\$ 44,704.00
Wave Analysis	\$ 3,500.00

Sub-Total	<u>\$345,317.00</u>
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Profit (10%)	\$ 26,480.00
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Sub-Total	<u>\$371,797.00</u>
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Direct Expense	\$ 2,000.00
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Total Lump Sum Fee	<u>\$373,797.00</u>
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Say	\$373,800.00
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# TIME SCHEDULE RECONSTRUCTION OF PIER 3

TASKS

NTP

1 2 3 4 5 6 7 8 9 10 11 12 MONTHS

## 1. PRELIMINARY DESIGN & ENGINEERING

- DATA COLLECTION
- DESIGN DEVELOPMENT
- DESIGN DEVELOPMENT PLANS
- OUTLINE SPECS.
- COST ESTIMATE
- DESIGN CRITERIA
- MEETINGS

## 2. CONSTRUCTION CONTRACT DOCUMENTS

- CONTRACT DRAWINGS
- CONTRACT SPECS.
- DESIGN COMPUTATION
- COST ESTIMATE
- DESIGN CRITERIA
- REVIEW & EVALUATE BIDS

## 3. DRAWINGS AND REPORTS FOR PUBLIC AGENCIES

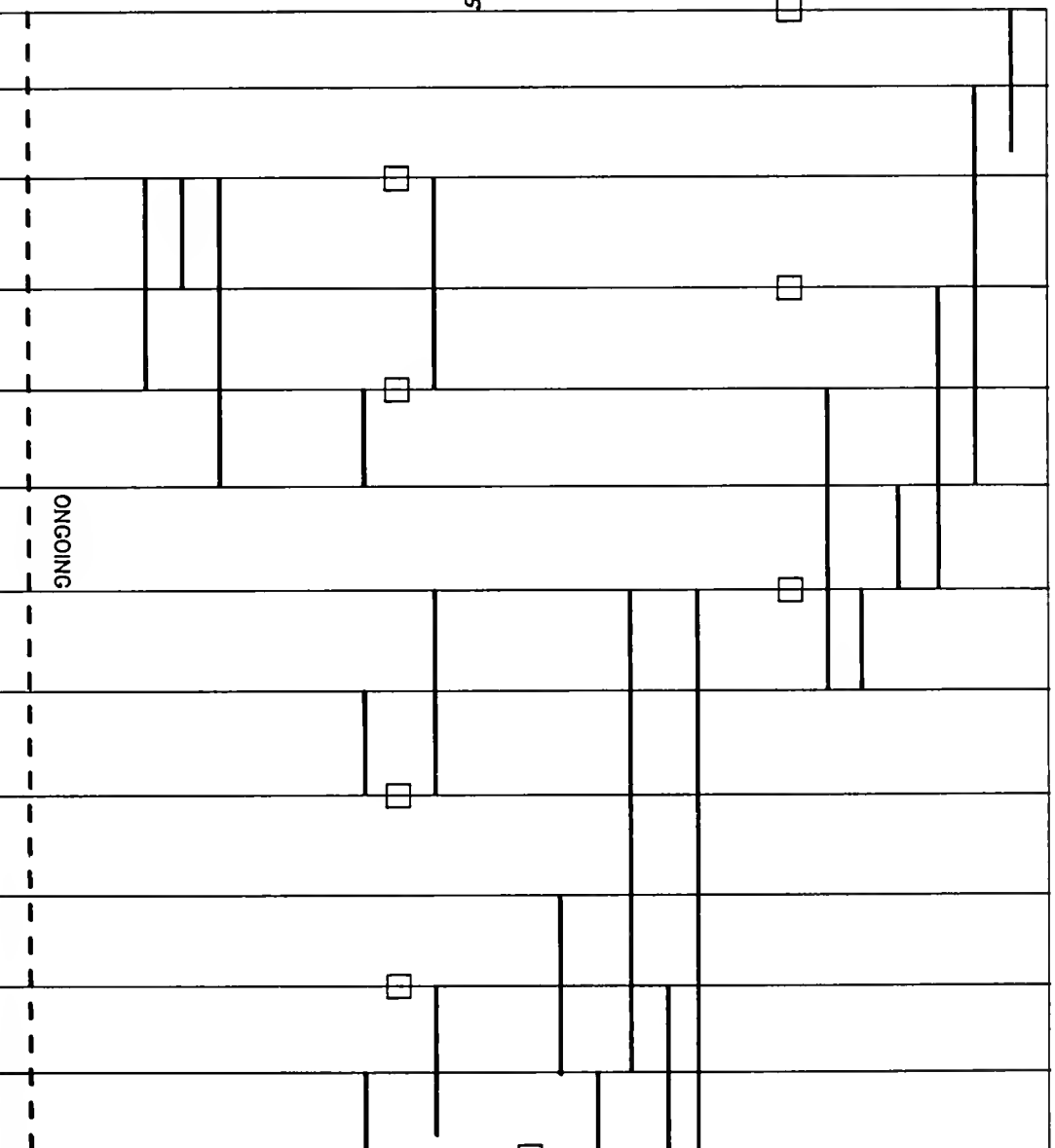
- DRAWINGS & REPORT PREPARATION
- MEETINGS
- REVISIONS AND ADDITIONS

## 4. BORINGS, LABORATORY TESTS, LAND SURVEYS DIVING INVESTIGATIONS

- SOIL BORING & TESTING
- LAND SURVEYS
- DIVER INSPECTIONS

## 5. CONSULTATION, ADVICE & COORDINATION

- CONSULTATION









**MAGUIRE GROUP INC.**



## WATERFRONT EXPERIENCE

### Water Transportation Facilities - Site Evaluation Boston Harbor, Massachusetts

The Massachusetts Water Resources Authority's proposed wastewater treatment facility for Boston Harbor required the location of on-shore facilities to help provide access to Deer and Nut Islands for equipment, building materials and personnel during the construction. The project was intended as a mitigation measure so that large volumes of vehicles will not congest local streets in Winthrop and Quincy.

The Final Environmental Impact Report, "Siting of Wastewater Treatment Facilities for Boston Harbor", listed 18 potential on-shore sites for the establishment of pier and/or docking facilities. These sites and other sites within feasible distance were evaluated as part of this study. The primary goal of the plan and program investigated on-shore facilities and documented the existing conditions such as infrastructure and available services and developed a program to assure their availability.

Two types of on-shore waterfront facilities were required for the construction of planned improvements: a roll-on/roll-off pier and personnel/ferry piers.

The roll-on, roll-off facility provided for the transfer of equipment and materials factory or for the transfer of equipment and materials from factory or distributor directly to island via the same truck or tractor-trailer. Roll-on, roll-off facilities were not available in Boston Harbor. Requirements for the facilities included access and marshalling area for queueing trucks and equipment, truck access from highway, adequate water depth, navigational considerations and adaptability of existing piers to accommodate roll-on, roll-off ramp.

The evaluation also included the feasibility of providing some general pier space to allow for the lift-on/lift-off of some cargo. While it appeared favorable to locate the general pier and roll-on/roll-off functions at one site, it was advantageous to separate these functions if the prime roll-on/roll-off site could not meet the general pier requirements.

Upon completion of this study, Maguire was awarded Phases II and III of the contract: pier design, and construction administration and resident inspections. A completion date is estimated in 1990.

### Beverly Harborfront Public Improvements Beverly, Massachusetts

Maguire Group Inc. in association with two other consulting firms, was retained by the City of Beverly to help obtain grant monies from the Coastal Facilities Improvement Program to construct a facility to promote commercial



fishing, recreational boating and tourism along the Beverly waterfront. Local commercial fishermen and recreational boaters were the impetus behind the project, concerned about lack of public access to marine-related facilities in Beverly.

The scope of work for this study included:

- o A waterfront development strategy, which includes public access and facilities for commercial and recreational boating.
- o A conceptual design for Water Street, an historic area whose structures and maritime character should be preserved.
- o Recommendation of potential sites along the Beverly harborfront for facility development.
- o Examination of potential funding sources.
- o Preparation of permits necessary for development, including preliminary concept engineering and cost estimating.
- o U.S. Army Corps of Engineers Permit Department of Environmental Quality Engineering Chapter 91 License.
- o Notice of Intent to Beverly Conservation Commission and Department of Environmental Quality Engineering.

#### New Containerization Facilities -- Feasibility Study Boston, Massachusetts

This feasibility study first established the economic justification for a new container terminal. A market analysis considered the general status and forecast of container traffic, both international and domestic, capacity of existing facilities, container activity within the Port of Boston, and future demand projections.

An investigation was made of all potential sites within Boston's Inner Harbor to determine the most suitable location for these facilities. With this inventory of potential sites, subsequent analysis considered such factors as navigation, future shipping innovations, road and rail access, local geology and foundation characteristics, structures, utilities and equipment.

Although basically an economics and engineering effort, the multi-discipline study team also considered social and environmental factors. The site recommended as most suitable called for the development of a private, restricted-use right-of-way for combined truck and rail traffic in order to minimize impact to the community.

#### Port Expansion Providence, Rhode Island

Innovative design and cost control in a fast track situation were key elements of this \$7 million project which material increased capacity of the Port of



Providence by dredging existing berths below the foundation level of the existing granite gravity seawall. Work included placement of a sheet pike curtain wall at the toe of the structure, and installation of small diameter grouted concrete piles through the wall, a construction technique to our knowledge not previously used for this purpose in the United States.

#### Wharf Extension

Portsmouth, New Hampshire

Costs and time were critical elements in this project, due to the client's budget limitations and port operational requirements. Despite severe climatic conditions, Maguire's field work was undertaken in December. Detailed analysis of alternate configurations and structural systems led to selection of high capacity concrete-filled steel pipe caissons socketed into the underlying rock. The wharf extension, designed for 1,000 pounds per square foot live load, consisted of cast-in-place caisson caps, prestressed beams, and a prestressed deck, which was post-tensioned in the field in the perpendicular direction to provide two-way slab action. The berth was dredged to elevation -35 feet MLW, with potential for future dredging to -40 feet MLW.

Future dredging will involve blasting, a factor which was taken into account in design. The overall combination of innovative design, careful estimating, and cost control enabled the client to obtain this facility within its limited budget. Low bid came in a \$1.56 million against Maguire's estimate of \$1.7 million.

#### Charles River Dam

Boston, Massachusetts

The Charles River facility is the largest single construction project undertaken by the New England Division of the Corps of Engineers, completed at a cost of over \$35 million.

The facility maintains the Charles River Basin at a constant level to prevent flooding. It consists of a dam, navigation locks, pumping station, pollution control facilities, fish ladder, and police patrol boat station. The pumping station has a capacity of 8,400 cubic feet per second through six diesel powered pumps. There are three navigational locks: one lock, 300 feet by 40 feet, utilized by commercial traffic; and two locks, 200 feet by 22 feet, for recreational boating. The project location was dictated by hydraulic criteria, foundation conditions, and economic parameters.

Engineering was complicated by the presence of an existing bridge, underground utilities, and the necessity to pass flood flows during construction.



The success of the project is reflected in the fact that Maguire's design has received three awards since the project was completed. The Outstanding Civil Engineering Achievement Award for the New England Region of ASCE singled out the Charles River Project for a Special Award for its contribution to the Enhancement of Urban Environment. The project received an honorable mention in the Chief of Engineer Design and Environmental Awards for achievement in the category of landscape architecture. the most prestigious award bestowed on the project was the first-ever Presidential Award for Design Excellence sponsored by the National Endowment for the Arts. A panel of distinguished jurors selected the Charles River Project and twelve other winners from a field of 630 entries.

Nantucket Ferry Terminal  
Nantucket, Massachusetts

Maguire was retained to design one new transfer slip and to rehabilitate one existing transfer slip with 100 new feet of transfer bridges for both slips. Also included was a new steel bulkhead system around the entire facility, regrading and landscaping of the area, and a new terminal building. As part of the design, Maguire recommended a state-of-the-art fendering system for both berthside and dolphin fenders. This high energy absorption fender system has worked out very well and to the fullest satisfaction of the operators.

Waterside Marina and Wave Screen  
Norfolk, Virginia

The \$2 million Norfolk Waterfront Redevelopment project is a model of downtown redevelopment. Targeted at reorientation towards Norfolk's maritime heritage, this project, which spans a decade of construction effort, has reshaped the city's waterfront into an integrated series of parks, and commercial and office enterprises. The lineal development is anchored to the east by the Omni Hotel and the Waterside shopping complex. Located on the inland waterway, the Waterside complex afforded an excellent opportunity for a marina complex for transient boats and visiting tall ships to set the theme for the public oriented water access.

When the Norfolk Housing Redevelopment Authority conceived the project, innovation and aesthetics were the key to the development which consists of a wave screen and timber walkway constructed parallel to the shore, thus creating a small boat harbor. The wave screen was constructed in difficult foundation conditions utilizing large diameter concrete piles capped with a concrete beam. It is covered by a timber walkway 750 feet long which is open to the public. Within the harbor is a full service marina for transient boats including floating docks, electric and water service, sewage pumpout facilities and dockmaster's office. The low level structure and orientation of the docks was designed to minimize visual obstructions to the water.

Outboard of the wave screen is a berth 500 feet long for visiting tall ships or naval vessels. Four large concrete breasting dolphins provide mooring for the ships. The berth is supplied with complete utility services.



### Chubbs Wharf

Mystic Seaport, Connecticut

The bark, Charles W. Morgan, last survivor of the great fleet of American whalers, lies at her permanent berth, Chubbs Wharf, Mystic Seaport, Mystic, Connecticut. Built in 1841 in New Bedford, Massachusetts, the Morgan went to sea for eight years in pursuit of whales and earned more for her owners than any other whaler on record. In 1967, she was designated a Registered National Historical Landmark.

Chubb's Wharf is a granite-filled structure 100 feet wide, extending 150 feet into the Mystic River. Its dimensions permit laying the Morgan alongside any of its three faces, achieving exhibit variety as well as changing directional exposure so desirable for wooden vessels. In appearance and construction, it is a reproduction of waterfront piers utilized in old whaling ports such as New Bedford, Massachusetts and contributes both aesthetically and historically to the Mystic Seaport Museum.

### Middletown Waterfront Improvement Project

Middletown, Connecticut

Maguire provided the master plan and all designs for this project for the redevelopment of over 1/2 mile of city-owned land along the Connecticut River for active and passive recreational activities. Improvements included a 1,500-foot steel bulkhead with a wooden boardwalk equipped with restroom facilities, picnic areas, and various shelters. An existing structure formally used as a yacht club was completely renovated for commercial use. Shoreline stabilization measures were implemented, and 200 feet of cable-stayed, self-adjusting floating docks were provided. This represents an innovation in dock design in that the docks adjust to water levels of from zero to fourteen feet without protruding into the river channel.

### Massport Marine Terminal

South Boston, Massachusetts

Based on condition surveys performed by Maguire, rehabilitation of the north jetty was completed. The project required three million cubic yards of fill, containment dikes and site improvements. The jetty, a pile supported concrete deck, was built in the early 1940's and had deteriorated considerably. Maguire, using concrete filled fiberglass bags, was able to restore the piles to the original capacity. Other concrete work was repaired by either shotcreting or epoxy modified concrete. To allow berthing of large vessels, new high energy absorbing fender units were installed. The wharf is located in South Boston in the former Naval Annex.



Massport South and East Jetties  
South Boston, Massachusetts

A structural condition survey including diver inspection was performed for the Economic Development and Industrial Corporation of Boston. The Jetties, which are actually concrete wharf structures, were built initially in the 1940's. They are located adjacent to the North Jetty, which is controlled by Massport.

EDIC Pier # 10 — Naval Annex  
South Boston, Massachusetts

Maguire has recently completed the rehabilitation of Pier #10 in the Naval Annex of South Boston. The rehabilitation work was requested by the EDIC because the pier had been condemned for use. Maguire was responsible for design, permitting and construction resident services. To rehabilitate the pier, partial demolition of the concrete pier was necessary. The remainder of the pier was then reconstructed using concrete pile jackets and shotcrete. In addition, new floats and a fender system were added.



#### CLIENT REFERENCES

Mr. Kevin O'Brien, Project Manger  
Engineering Division  
Massachusetts Water Resources Authority  
100 First Avenue  
Charlestown, MA 02129  
Telephone: (617) 242-6000

Mr. Phillip J. Parent, Operations Manager  
Woods Hole, Martha's Vineyard and Nantucket  
Steamship Authority  
P.O. Box 284  
Woods Hole, MA 02543  
Telephone: (508) 548-5011

Mr. Robert V. Gilbane, President  
Gilbane Properties  
Providence, RI  
Telephone: (401) 456-5800

Mr. Louis DiGiovanni  
Kennedy & Eliot  
Realty Trust  
Cambridge, MA 02134  
Telephone: (617) 354-0835

Mr. Paul Reavis  
Asst. Director, Engineering  
and Design Services  
Director of Engineering  
Boston Redevelopment Authority  
One City Hall Square  
Boston, MA  
Telephone: (617) 242-7400

Mr. Charles Steward  
Assistant Director Construction  
Massachusetts Bay Transportation  
Authority  
(617) 722-3122

Mr. George Johnson  
Director of Engineering  
Massport  
(617) 973-5500

Mr. Larry Mammoli  
Project Manager  
EDIC  
(617) 725-3342



<b>STANDARD FORM (SF) 255</b> Architect-Engineer Related Services for Specific Project		1. Project Name/Location For Which Firm Is Filing: <b>Charlestown Navy Yard Reconstruction of Pier 3 Charlestown, MA</b>		2a. <b>Commerce Business</b> <b>Daily</b> Announcement Date, if any: <b>NA</b>		2b. Agency Identification Number, if any:	
3. Firm (or Joint-Venture) Name & Address <b>MAGUIRE GROUP INC. 60 First Avenue Waltham, MA 02254</b>		3a. Name, Title & Telephone Number of Principal to Contact <b>E. Allan Reed Director, Marine Group 617-890-0100</b>				3b. Address of office to perform work, if different from item 3	
4. Personnel by Discipline: (List each person only once, by primary function.)		4. Personnel by Discipline: (List each person only once, by primary function.)					
<u>7</u> Administrative		<u>0</u> Oceanographers					
<u>8</u> Architects		<u>2</u> Planners: Urban/Regional					
<u>0</u> Chemical Engineers		<u>4</u> Sanitary Engineers					
<u>18</u> Civil Engineers		<u>2</u> Soils Engineers					
<u>5</u> Construction Inspectors		<u>0</u> Specification Writers					
<u>13</u> Draftsmen		<u>7</u> Structural Engineers					
<u>0</u> Ecologists		<u>1</u> Surveyors					
<u>0</u> Economists		<u>6</u> Transportation Engineers					
		<u>4</u> Word Processing					
		<u>5</u> Port/Marine Engr.					
		<u>2</u> Contract Admin.					
		<u>1</u> Computer Program.					
		<u>3</u> Resource Recovery					
		<u>7</u> Others					
		<u>102</u> Total Personnel					
5. If Submittal is by JOINT-VENTURE list participating firms & outline specific areas of responsibility (including administrative, technical & financial) for each firm (Attach SF 254 for each if not on file with Procuring Office).		5. If Submittal is by JOINT-VENTURE list participating firms & outline specific areas of responsibility (including administrative, technical & financial) for each firm (Attach SF 254 for each if not on file with Procuring Office).					
		N/A					
5a. Has this Joint-Venture Previously Worked Together?		[ ] yes [X] no					



6. If respondent is not a joint-venture, list outside Consultants/Associates anticipated for this project (Attach SF 254 Consultants/Associates listed, if not already on file with the contracting office).

Name & Address	Specialty	Worked with Prime before (Yes or No)
1)Carol R. Johnson & Associates 1100 Massachusetts Avenue Cambridge, MA 02138	Landscape Architecture	Yes
2)Bryant Associates 648 Beacon Street Boston, MA 02215	Survey	Yes
3)Marine Industrial Divers, Inc. 196 Plain Street Braintree, MA 02184	Diving	Yes
4)		
5)		
6)		
7)		
8)		



7. Brief Resume of Key Persons, Specialists, and individual consultants anticipated for this Project

a. Name & Title:	SEE RESUMES IN "PROJECT TEAM" SECTION OF PROPOSAL	
b. Project Assignment:		
c. Name of Firm with which associated:		
d. Years Experience: With This Firm_____ With Other Firms_____		
e. Education: Degree(s)/Year/Specialization		
f. Active Registration: Year First Registered/Discipline		
g. Other Experience and Qualifications relevant to the proposed project:		



8. Work by firm or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Owner's Name & Address	d. Completion Date (Actual or estimated)	e. Estimated Cost (in thousands)	
				Entire project	Work for which Firm was/is responsible
South Boston Pier #10 Marine Industrial Park South Boston, MA 02210	Design, assistance with funding and permit applications, and construction resident services for demolition of concrete pier and rehabilitation of remaining pier.	Economic Development & Industrial Corp. South Boston, MA	04/15/87 (Actual)	\$950	100%
MWRA On-Island Piers Charlestown, MA	Lead design and planning firm for 22,000 s.f. marine pier and barge unloading dock.	Mass. Water Resources Authority Boston, MA 02129	10/01/89 (Est.)	\$24,800	100%
Waterside Wave Screen Norfolk, VA	Preliminary and final design and construction of administration of 50-slip marina and timber walkway and wavescreen.	NRHA 201 Granby Mall Norfolk, VA	1985 (Actual)	\$3000	100%
Charles River Dam Boston, MA	Soils engineering, hydraulic engineering, landscape architecture, design of dam, navigation locks, flood control, and pumping station.	Metropolitan District Commission Boston, MA	02/01/74 (Actual)	\$34,000	100%
Pier 8 Demo.-Newport News & Dry Dock Company Newport News, VA	Condition survey, construction documents for (Continue Next Page)	Newport News Shipbldg. 4101 Washington Avenue Newport News, VA 23607	1984 (Actual)	\$775	100%



8. Work by firm or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Owner's Name & Address	d. Completion Date (Actual or estimated)	e. Estimated Cost (in thousands)	
				Entire project	Work for which Firm was/is responsible
Pier 8 Demo.-Newport News	(Continued) demolition of pier, piles, superstructure, utilities and wharf fixtures. Additional documents prepared for post dredging of area covered by piles.	Newport News Shipbldg.			
Lynnhaven Municipal Marina Virginia Beach, VA	Design of Bulkhead improvements	City of Virginia Beach, Virginia	1988 (Actual)	\$1,500	100%
Seafood Industrial Park Newport News, VA	Design of 5,000 ft. of new bulkheading in the harbor	City of Newport News, Virginia	1985 (Actual)	\$18,000	100%
Christopher Newport Park Newport News, VA	Preliminary design of 1500 l.f. of steel bulkhead replacement and 800 l.f. of shoreline stab.	City of Newport News, Virginia	1988 (Actual)	\$3,000	100%
Leeward Marina Newport News, VA	Design and const. inspection of 600 l.f. of shoreline retaining wall for marina.	City of Newport News, Virginia	1987 (Actual)	\$4,000	100%
Huntington Park Newport News, VA	Design of 1500 l.f. of shoreline renovation	City of Newport News, Virginia	1988 (Actual)	\$5,000	100%



9. All work by firms or joint-venture members currently being performed directly for Federal agencies					
a. Project Name & Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name & Address	d. Percent complete	e. Estimated Cost (in thousands)	
				Entire Project	Work for which Firm was/is responsible
Attleboro Army Reserve 50 John Williams Attleboro, MA 02703	Full A/E services for expansion and renovation of 60-man reserve center to 200-man capacity, from design to contract document phase.	U.S. COE-New England Div., Waltham, MA	90	1600	100%



10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project.

**PORT AND MARINE SERVICES:**

Maguire Group Inc. consists of planning and engineering professionals with specific experience and expertise ranging from port development feasibility studies to final design and construction and inspection of complex marine terminals. Maguire has worked for many major U.S. port authorities, local communities, private operators, international lending agencies, and foreign ports. Maguire's Marine Group has also been privileged to serve the U.S. Navy in the design of military marine structures and port facilities, both domestically and at overseas locations in the Caribbean, Atlantic and Pacific Oceans.

Maguire Group Inc. was founded in 1938, and initially served as marine design and port consultants for the expanding U.S. Navy presence in New England. In 1970, Maguire was acquired by Combustion Engineering, Inc., a major energy conglomerate. During the 1970's while with Combustion Engineering, Maguire gained extensive international experience working on a variety of port projects in developing nations. In 1979, a group of Maguire's senior executives purchased the firm from Combustion Engineering. Today, Maguire Group Inc. totals over 500 professionals. Over the past ten years, the Marine Group has been involved in the development of over 40 miles of piers, wharves, and berthing structures, encompassing approximately \$1 billion in capital expenditures. Maguire has been providing marine consulting services worldwide, encompassing all facets of port operations, management and development.

Our Marine Group's extensive involvement in port consulting services to Port Authorities is exemplified by the firm's active membership and participation in the American Association of Port Authorities (AAPA), the International Association of Ports and Harbors (IAPH), the Propeller Club of the U.S., the North Atlantic Ports Authorities (NAPA), the Permanent International Association of Navigation Congresses (PIANC), and the Society of Naval Architects and Marine Engineers.

Services provided by Maguire which illustrate the comprehensiveness of the Maguire Marine program include hydrographic surveys, pier and wharf investigations, and professional engineer diver teams. A description of these services follows.

Hydrographic Surveys - Maguire offers these services so that our marine engineers and planners are able to secure the data for any project at the proper and required time. They are provided in preparation of facilities, construction, port and harbor conceptual design, and channel and basin dredging.

Pier and Wharf Investigations - These investigations have been a mainstay of the Maguire Marine program. Maguire attained this amount of work by offering sound advice to capital expense decision-makers. Maguire understands this decision making process and assists the client by providing information in a timely and informative manner.

11. The foregoing is a statement of facts.

Signature: *A. Reed*

Typed Name and Title: E. Allan Reed, Marine Grp Dir.

Date:

November 4, 1988





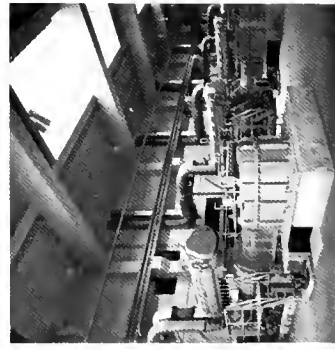
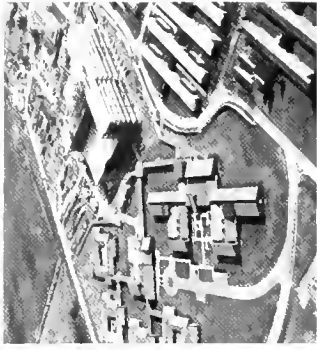
Maguire Group Inc.  
Architects/Engineers/Planners

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*Standard Form (SF) 254 Architect - Engineer  
and Related Services Questionnaire*  
*Civil*

Present Offices: City/State/Telephone/No. Personnel Each Office

Address	Telephone	Personnel
Providence, RI 02903, One Davol Square	(401) 272-6000	156
Waltham, MA 02254, 60 First Avenue	(617) 890-0100	90
New Britain, CT 06051, One Court Street	(203) 224-9141	143
Pittsburgh, PA 15219, 1301 Manor Building, 564 Forbes Avenue	(412) 281-6393	6
Falls Church, VA 22041, 5203 Leesburg Pike Suite 200	(703) 998-0100	42
Virginia Beach, VA 23452, 770 Lynnhaven Pkwy., Suite 240	(804) 463-8770	41
Honolulu, HI 96814, 1600 Kapiolani Boulevard	(808) 949-2047	6
Houston, TX 77057, Suite 336, 5701 Woodway	(713) 782-2088	2
Wayne, NJ 07470, 401 Hamburg Turnpike, Suite 101	(201) 942-4811	20
Deerfield Beach, FL 33441, 10 Fairway Drive, Suite 200	(305) 429-1330	2



## 1. Firm Name / Business Address:

MAGUIRE GROUP INC.  
ONE DAVOL SQUARE  
PROVIDENCE, RHODE ISLAND 029031a. Submittal is for ☐ Parent Company ☐ Branch or Subsidiary Office2. Year Present Firm  
Established:

1938

## 3. Date Prepared:

May 1, 1988

## 4. Specify type of ownership and check below, if applicable.

CORPORATION

☐ A. Small Business☐ B. Small Disadvantaged Business☐ C. Woman-owned Business

## 5. Name of Parent Company, if any:

N/A

## 5a. Former Parent Company Name(s), if any, and Year(s) Established:

CE MAGUIRE, INC. — 1979  
C-E MAGUIRE, INC. — 1970  
CHARLES A. MAGUIRE, INC. — 1968  
CHARLES A. MAGUIRE & ASSOCIATES — 1938

## 6. Names of not more than Two Principals to Contact: Title / Telephone

- 1) Vincent M. Cangiano, P.E., President 203-224-9141  
2) Richard J. Repeta, P.E., Executive Vice President 203-224-9141

## 7. Present Offices: City / State / Telephone / No. Personnel Each Office

7a. Total Personnel 508

FOR A COMPLETE LISTING, SEE ATTACHMENT

## 8. Personnel by Discipline: (List each person only once, by primary function.)

86 Administrative	12 Electrical Engineers	0 Oceanographers	12 Word Processing
35 Architects	1 Estimators	15 Planners: Urban/Regional	8 Energy/Res. Recovery
0 Chemical Engineers	0 Geologists	35 Sanitary Engineers	7 Contract Administrators
48 Civil Engineers	6 Hydrologists	5 Soils Engineers	7 Computer Programmers
35 Construction Inspectors	3 Interior Designers	2 Specification Writers	2 Value Engineers
85 Draftsmen	5 Landscape Architects	25 Structural Engineers	2 Photogrammetrists
0 Ecologists	14 Mechanical Engineers	3 Surveyors	1 Traffic
1 Economists	0 Mining Engineers	44 Transportation Engineers	0 Others

## 9. Summary of Professional Services Fees

## Received (Insert index number)

## Last 5 Years (most recent year first)

Direct Federal contract work, including overseas	19 87	19 86	19 85	19 84	19 83
All other domestic work	6	6	7	7	7
All other foreign work*	8	8	8	8	8
	0	0	4	4	5

\*Firms interested in foreign work, but without such experience, check here: ☐

## Ranges of Professional Services Fees

INDEX

1	Less than \$100,000
2	\$100,000 to \$250,000
3	\$250,000 to \$500,000
4	\$500,000 to \$1 million
5	\$1 million to \$5 million
6	\$2 million to \$5 million
7	\$5 million to \$10 million
8	\$10 million or greater

10. Profile of Firm's Project Experience, Last 5 Years

Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)
1) 005	3	733	11) 048	39	4,399	21) 089	65	2,872
2) 006	9	4,650	12) 049	22	1,847	22) 090	22	6,332
3) 011	76	9,216	13) 050	70	2,810	23) 096	279	24,971
4) 021	226	25,531	14) 052	27	1,845	24) 099	37	1,277
5) 029	20	2,340	15) 058	18	1,638	25) 102	56	566
6) 032	19	635	16) 072	56	5,100	26) 104	27	1,483
7) 033	54	7,446	17) 079	80	2,542	27) 107	50	1,703
8) 039	22	1,652	18) 083	78	5,164	28) 109	6	2,532
9) 042	74	5,910	19) 084	9	1,301	29) 110	18	1,693
10) 046	130	23,885	20) 087	4	961	30) 115	187	12,372

11. Project Examples, Last 5 Years

Profile Code	"P", "C", "JV", or "IE"	Project Name and Location	Owner Name and Address	Cost of Work (in thousands)	Completion Date (Actual or Estimated)
005	P	1 Airfield Improvements U.S. Marine Corps Air Station Kaneohe, Oahu, Hawaii	Naval Facilities Engineering Command Pacific Division Pearl Harbor, Hawaii	29,000	1986
006	JV	2 Bradley International Airport Windsor Locks, Connecticut	Connecticut Department of Transportation Hartford, Connecticut	100,000	1986
011	P	3 Chicopee River Bridge Chicopee, Massachusetts	Cities of Chicopee and Springfield, Massachusetts	8,000	1990
011	P	4 Bridge Rehabilitation/Replacement Program Statewide, Massachusetts	Massachusetts Department of Public Works Boston, Massachusetts	30,000	1987
011	P	5 I-264 Interchange Norfolk, Virginia	Virginia Department of Transportation Richmond, Virginia	160,000	1989
011	P	6 Dexter Coffin Bridge Enfield - Windsor Locks, Connecticut	Connecticut Department of Transportation Wethersfield, Connecticut	21,000	1991
021	P	7 Bradley Hotel Windsor Locks, Connecticut	Lloyds Bank International, Ltd. New York, New York	25,000	1987

021	JV	<b>8</b> Boston Harbor Clean-Up Boston, Massachusetts	Massachusetts Water Resources Authority Boston, Massachusetts	3,000,000	1998
021	P	<b>9</b> Wastewater Treatment Facilities New Haven, Connecticut	City of New Haven New Haven, Connecticut	37,000	1990
029	P	<b>10</b> Northern Virginia Community College 3 Campuses Alexandria and Manassas, Virginia	Commonwealth of Virginia Richmond, Virginia	35,000	1985
039	P	<b>11</b> Harvard Square Parking Garage Cambridge, Massachusetts	Louis DiGiovanni Cambridge, Massachusetts	5,000	1985
042	P	<b>12</b> Massport Marine Terminal Naval Annex South Boston, Massachusetts	Massachusetts Port Authority Boston, Massachusetts	40,000	1986
042	P	<b>13</b> Christopher Newport Park Waterfront Improvements Newport News, Virginia	City of Newport News, Virginia	8,000	1988
046	P	<b>14</b> Civic Center & Capital Center Projects Providence, Rhode Island	Rhode Island Department of Transportation Providence, Rhode Island	67,000	1987
046	P	<b>15</b> Intersection I-93/Route 16 Interchange Medford, Massachusetts	Massachusetts Department of Public Works Boston, Massachusetts	15,000	1987
046	P	<b>16</b> Interstate 287 Widening Morris and Somerset Counties, New Jersey	New Jersey Department of Transportation Trenton, New Jersey	30,000	1988
046	P	<b>17</b> Southeastern Expressway Virginia Beach Area, Virginia	Virginia Department of Transportation Richmond, Virginia	200,000	1991
048	P	<b>18</b> Norwalk Hospital Norwalk, Connecticut	Norwalk Hospital Norwalk, Connecticut	31,000	1987
049	P	<b>19</b> Tysons Corner Sheraton Hotel and Conference Center McLean, Virginia	SRS Joint Venture Bethesda, Maryland	40,000	1986

052	P	20	Systems Processing Facility Fort Meade, Maryland	U.S. Army Corps of Engineers Baltimore, Maryland	12,000	1985
072	P	21	State Office Building Providence, Rhode Island	Rhode Island Public Building Authority Providence, Rhode Island	22,000	1987
083	P	22	27 Miles 138 KV Line Two Sub-Stations	City Electric Systems Key West, Florida	22,000	1986
087	JV	23	MRTCA 195 Wilshire-Vermont Stations Los Angeles, California	Southern California Rapid Transit District Los Angeles, California	30,000	1987
090	P	24	2000 TPD Resource Recovery Facility Hartford, Connecticut	Combustion Engineering, Inc. Windsor, Connecticut	154,000	1987
096	P	25	PA-LI Wastewater Treatment Plant — Phase I Taipei, Taiwan	Taiwan Housing and Urban Development Bureau Taipei, Taiwan	600,000	1991
096	P	26	Advanced Wastewater Treatment Plan Meriden, Connecticut	City of Meriden, Connecticut	30,000	1985
096	P	27	Phase VI and VII Sewer Separations Cambridge, Massachusetts	City of Cambridge, Massachusetts	10,000	1990
096	P	28	Storm and Sewage Separation Gravity Sewer Force Main and Pump Station Norwich, Connecticut	Norwich Public Utilities Norwich, Connecticut	64,000	1986
109	P	29	Greenbelt Route Subway Section E-2 Washington, D.C.	Washington Metro Area Transit Authority Washington, D.C.	75,000	1988
115	P	30	Lake Gaston Water Supply Project Project Management & Preliminary Final Designs Virginia Beach, Virginia	City of Virginia Beach, Virginia	185,000	1992
12. The foregoing is a statement of facts				Date: May 1, 1988		
Signature:		Vincent M. Cangiano Typed Name and Title & Chief Executive Officer Vincent M. Cangiano, President				

Experience Profile Code Numbers  
for use with questions 10 and 11

001 Acoustics, Noise Abatement	042 Harbors, Jetties, Piers, Ship Terminal Facilities	086 Radar, Sonar, Radio & Radar Telescopes
002 Aerial Photogrammetry	043 Heating, Ventilating, Air Conditioning	087 Railroad, Rapid Transit
003 Agricultural Development, Grain Storage; Farm Mechanization	044 Health Systems Planning	088 Recreation Facilities ( <i>Parks, Marinas, Etc.</i> )
004 Air Pollution Control	045 Highrise: Air-Rights-Type Buildings	089 Rehabilitation ( <i>Buildings, Structures, Facilities</i> )
005 Airports; Navards; Airport Lighting;	046 Highways, Streets, Airfield Paving, Parking Lots	090 Resource Recovery, Recycling
006 Aircraft Fueling	047 Historical Preservation	091 Radio Frequency Systems & Shieldings
007 Airports, Terminals & Hangars, Freight Handling	048 Hospital & Medical Facilities	092 Rivers, Canals, Waterways, Flood Control
008 Arctic Facilities	049 Hotels, Motels	093 Safety Engineering, Accident Studies, OSHA Studies
009 Auditoriums & Theatres	050 Housing ( <i>Residential, Multi-Family, Apartments, Condominiums</i> )	094 Security Systems, Intruder & Smoke Detection
010 Automation, Controls; Instrumentation	051 Hydraulics & Pneumatics	095 Seismic Designs & Studies
011 Barracks; Dormitories	052 Industrial Buildings; Manufacturing Plants	096 Sewage Collection, Treatment and Disposal
012 Bridges	053 Industrial Processes, Quality Control	097 Soils & Geologic Studies, Foundations
013 Cemeteries ( <i>Planning &amp; Relocation</i> )	054 Industrial Waste Treatment	098 Solar Energy Utilization
014 Chemical Processing & Storage	055 Interior Design; Space Planning	099 Solid Wastes, Incineration, Land Fill
015 Churches; Chapels	056 Irrigation; Drainage	100 Special Environments; Clean Rooms, Etc
016 Codes; Standards, Ordinances	057 Judicial and Courtroom Facilities	101 Structural Design, Special Structures
017 Cold Storage, Refrigeration, Fast Freeze	058 Laboratories; Medical Research Facilities	102 Surveying, Platting, Mapping, Flood Plain Studies
018 Commercial Buildings ( <i>low rise</i> ), Shopping Centers	059 Landscape Architecture	103 Swimming Pools
019 Communications Systems, TV, Microwave	060 Libraries, Museums, Galleries	104 Storm Water Handling & Facilities
020 Computer Facilities, Computer Service Conservation and Resource Management	061 Lighting ( <i>Interiors; Display, Theatre, Etc.</i> )	105 Telephone Systems ( <i>Rural, Mobile, Intercom, Etc.</i> )
021 Construction Management	062 Lighting ( <i>Exteriors, Streets, Memorials, Athletic Fields, Etc.</i> )	106 Testing & Inspection Services
022 Corrosion Control; Cathodic Protection; Electrolysis	063 Materials Handling Systems, Conveyors, Sorters	107 Traffic & Transportation Engineering
023 Cost Estimating	064 Metallurgy	108 Towers ( <i>Self-Supporting &amp; Guyed Systems</i> )
024 Dams ( <i>Concrete, Arch</i> )	065 Microclimatology, Tropical Engineering	109 Tunnels & Subways
025 Dams ( <i>Earth, Rock</i> ), Dikes; Levees	066 Military Design Standards	110 Urban Renewals, Community Development
026 Desalination ( <i>Process &amp; Facilities</i> )	067 Mining & Mineralogy	111 Utilities ( <i>Gas &amp; Steam</i> )
027 Dining Halls; Clubs; Restaurants	068 Missile Facilities ( <i>Silos, Fuels, Transport</i> )	112 Value Analysis, Life-Cycle Costing
028 Ecological & Archeological Investigations	069 Modular Systems Design, Pre-Fabricated Structures or Components	113 Warehouses & Depots
029 Educational Facilities, Classrooms	070 Naval Architecture; Off-Shore Platforms	114 Water Resources; Hydrology, Ground Water
030 Electronics	071 Nuclear Facilities; Nuclear Shielding	115 Water Supply, Treatment and Distribution
031 Elevators; Escalators; People-Movers	072 Office Buildings; Industrial Parks	116 Wind Tunnels, Research/Testing Facilities Design
032 Energy Conservation; New Energy Sources	073 Oceanographic Engineering	117 Zoning, Land Use Studies
033 Environmental Impact Studies, Assessments or Statements	074 Ordnance; Munitions; Special Weapons	201
034 Fallout Shelters; Blast-Resistant Design	075 Petroleum Exploration; Refining	202
035 Field Houses; Gyms; Stadiums	076 Petroleum and Fuel ( <i>Storage and Distribution</i> )	203
036 Fire Protection	077 Pipelines ( <i>Cross-Country—Liquid &amp; Gas</i> )	204
037 Fisheries; Fish Ladders	078 Planning ( <i>Community, Regional, Area-wide and State</i> )	205
038 Forestry & Forest Products	079 Planning ( <i>Site, Installation, and Project</i> )	
039 Garages, Vehicle Maintenance Facilities, Parking Decks	080 Plumbing & Piping Design	
040 Gas Systems ( <i>Propane, Natural, Etc.</i> )	081 Pneumatic Structures; Air-Support Buildings	
041 Graphic Design	082 Postal Facilities	
	083 Power Generation, Transmission, Distribution	
	084 Prisons & Correctional Facilities	
	085 Product, Machine & Equipment Design	



**CAROL R. JOHNSON & ASSOCIATES**



1. Project Name / Location for which Firm is Filing:

SURVEY, DESIGN, AND ENGINEERING SERVICES RELATING TO  
THE RECONSTRUCTION OF PIER 3 IN THE CHARLESTOWN NAVY  
YARD  
Charlestown, MA

3. Firm (or Joint-Venture) Name & Address

CAROL R. JOHNSON & ASSOCIATES, INC.  
1100 Massachusetts Avenue  
Cambridge, MA 02138

3a. Name, Title & Telephone Number of Principal to Contact

(Ms.) Carol R. Johnson, President  
(617) 868-6115

3b. Address of office to perform work, if different from Item 3

2a. Commerce Business  
Daily Announcement  
Date, if any:

2b. Agency Identification  
Number, if any:

4. Personnel by Discipline:

8. Administrative	Electrical Engineers	Oceanographers
Architects	Estimators	Planners: Urban/Regional
Chemical Engineers	Geologists	Sanitary Engineers
Civil Engineers	Hydrologists	Soils Engineering
Construction Inspectors	Interior Designers	1 Specification Writers *
Draftsmen	29 Landscape Architects	Structural Engineers
Ecologists	Mechanical Engineers	Surveyors
Economists	Mining Engineers	Transportation Engineers
		38 Total Personnel

\*Also a Registered Landscape Architect

5. If submittal is by Joint-Venture list participating firms and outline specific areas of responsibility (including administrative, technical and financial) for each firm:  
(Attach SF 254 for each if not on file with Procuring Office.)



8. Work by Firm or Joint Venture Members which Best Illustrates Current Qualifications Relevant to this Project (List not more than 10 Projects)

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Owner's Name & Address	d. Completion Date (actual or estimated)	e. Estimated Cost (in thousands)	
				Entire Project	Work for which Firm was/is responsible
(1) LINCOLN WHARF Boston, MA	Site design for wharf marina and passive recreation areas.	Lincoln Wharf Associates Boston, MA (Consultant to Notter, Finegold, Boston, MA)	1989	N/A	\$1,500
(2) PARCEL 1C, SHIPYARD QUARTERS Charlestown, MA	Cont. Docs. for public waterfront promenade on exist. marginal pier.	Paul Davis Immobilier New England Charlestown, MA	1987	N/A	\$ 90
(3) PEDESTRIAN PATHWAY ALONG CHARLES RIVER Waltham, MA	Ped. pathway design, including pier analysis for boat dock facility.	Mayor Clark City of Waltham Waltham, MA	1986 (On Hold)	\$ 180	\$ 180
(4) HARBORWALK AT LOGAN INTERNATIONAL AIRPORT East Boston, MA	Master plan design & development for harbor-side recreational walk.	John R. Davis Massport Authority Boston, MA	1984 1985 1986	\$5,400 1,400 4,000	\$5,400 1,400 4,000
(5) WATERFRONT PARK AT COLUMBIA POINT South Boston, MA	Design of passive recreational harborfront park; implementation.	Jim Falck Metropolitan Dist. Comm'n. Boston, MA	1988	\$8,000	\$8,000
(6) LECHMERE CANAL PARK East Cambridge, MA	Design of waterfront park, related residential and retail street improvements.	Betty Flemmings Cambridge Comm. Develop. Dept. Cambridge, MA	1987	\$6,200	\$6,200
(7) HERITAGE STATE PARK Lynn, MA	Site design for harborfront state park; planting, paving, furniture.	Christopher M. Greene Dept. of Environmental Mgmt. Boston, MA	1986	\$3,500	\$1,200
(8) SHIPYARD QUARTERS MARINA AND PROMENADE Charlestown, MA	Design of harborfront promenade and recreation-piers at former Navy Yard.	Arnold Haight Immobilier New England Charlestown, MA	1982	\$3,500	\$2,000
(9) MYSTIC RIVER RESERVATION PARK Medford/Somerville, MA	Land reclamation; park master plan design and development.	Jim Falk Metropolitan Dist. Comm'n. Boston, MA	1977	\$3,200	\$3,200
(10) NORTH END PARK Boston, MA	Master plan design and development for harborfront park.	Paul Donahue Public Facilities Department Boston, MA	1977	\$ 600	\$ 600



9. All work by firms or joint-venture members currently being performed directly for Federal agencies.					
a. Project Name & Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name & Address	d. Percent complete	e. Estimated Cost (In Thousands)	
				Entire Project	Work for which firm is responsible
Veterans Administration Medical Center Boston, MA	Parking Lot Expansion and Upgrading	Jim Boaz, Engineer Services V.A.M.C. 150 South Huntington Avenue Boston, MA 02130	100% Design	\$180	\$180



As consulting landscape architects for the reconstruction of Pier 3 in the Charlestown Navy Yard, Carol R. Johnson & Associates, Inc. can bring the following assets to the project team:

1. More than 25 years of waterfront design experience, including the design of parks and recreational facilities in historic settings.
  2. An established professional relationship with the Boston Redevelopment Authority, under whose direction the firm prepared a comprehensive study for the restoration of the Boston Common and Public Garden in 1976. CRJ&A is currently coordinating its site designs for the Burroughs Wharf luxury condominium development with the B.R.A.
  3. A long-standing professional relationship with Childs Engineering Corporation. The two firms have collaborated on waterfront restoration projects at Shipyards Quarters in the Charlestown Navy Yard, at the recently completed Lechmere Canal Park; at Harborwalk at Logan Airport; and at the North End Park in Boston.
  4. A first-hand familiarity with the project site. CRJ&A was project designer for the recreational boardwalk and pier amenities along Piers 5 and 6 at Shipyards Quarters. The work was completed in 1982. More recently, the firm consulted to the project architects for the design of pier amenities along Pier 7, the site of new luxury condominiums.
  5. An in-house team of landscape design professionals committed to the successful outcome of this important project.
- Carol R. Johnson & Associates, Inc. is a SOMBA-certified woman owned small business enterprise with an established affirmative action program.

11. The foregoing is a statement of facts.

Signature: Carol R. Johnson

Typed Name and Title: Carol R. Johnson, President

Date:

January 25, 1988



BURROUGHS WHARF  
Boston, MA

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Carol R. Johnson & Associates, Inc. was retained by Notter, Finegold & Alexander, Inc., project architects, for a new luxury condominium development on Burroughs Wharf along the Boston waterfront, to provide landscape design and public space design for the development. Within its general scope of responsibility were site plan design, including layout of parking areas, design of controlled access gates for marina facilities, design of public pedestrian space for passive recreation, and design of outdoor furnishings and planting.

Specifically, CRJ&A provided design and detailing of all surface paving systems, site grading, layout and surface materials description, design of all traffic control and pedestrian safety features (guardrailing, handrailing, bollards and curbing), design and detailing of a display fountain, of site lighting components, of an irrigation distribution system, of sign structures, and of site structures, including marina access gates and pier head pavilions. For these respective areas of involvement, CRJ&A provided complete design services, from schematic design through construction documents, contract specifications and construction administration.

Because of the site's prominent waterfront location, matters of public access and use dominated the site decisions and guided the firm in its design of all site elements.



SHIPYARD QUARTERS MARINA AND PROMENADE  
Charlestown, Massachusetts

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Shipyard Quarters Marina, the waterfront parcels and piers in the former Charlestown Navy Yard, is planned as a 550 boat marina in Boston's inner harbor. This private development by Immobiliare New England incorporates public access with harborside amenities. Carol R. Johnson & Associates, Inc. has provided landscape development plans for permanent and temporary development of the waterfront promenade and piers, the first phase of which is complete.

Included in Phase I is the development of Pier 6, extending 650 feet into Boston Harbor, and the public boardwalk promenade which stretches 800 feet along the waterfront. Pier 6 gives access to 150 marina slips through gates, provides controlled auto access and parking. Its public promenade, designed by Carol R. Johnson & Associates, with viewing platforms, seating and sun canopies, allows a panoramic view of the Boston Harbor and skyline. Railings, decking, planting, night lighting and marine security gates were designed by Carol R. Johnson & Associates.

Phase 2 is the development of Pier 5 as a seven court tennis club with clubhouse facilities and controlled access. Planters and benches enhance the wooden deck areas where players may relax and enjoy the scenic views.

Carol R. Johnson & Associates has now been retained by the Boston architects Notter, Finegold & Alexander to design surface improvements along Pier 7 at Shipyard Quarters, the site of new luxury condominiums under construction. Site development along Pier 7 includes new planting, site furniture, and design of special features such as paving, railings, decking, architectural trellises and vine planting.



BAKER CHOCOLATE MILLS  
Dorchester Lower Mills, Massachusetts

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Carol R. Johnson & Associates, Inc. is providing design services to Related Companies Northeast, designated developer of the historic Baker Chocolate Mills site in Dorchester Lower Mills, Massachusetts. Several mill buildings are being renovated for housing and a new building constructed for housing and parking.

The 7-acre site is also to be part of a Heritage State Park, providing interpretation of the history of the site for school groups and other park visitors. One area of the park has been designed to accommodate occasional special events such as chocolate festivals and concerts. A riverwalk promenade will offer views of the river and views of the dam originally built to provide power to the mills.

Estimated site construction costs are \$1.6 million.



LECHMERE CANAL PARK  
East Cambridge, Massachusetts

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Lechmere Canal Park is part of an overall revitalization effort to reclaim underused land and to transform Lechmere Square in East Cambridge into a functionally diverse and active urban center.

As prime consultant to the City of Cambridge for the 7.5 acre public park, Carol R. Johnson & Associates is responsible for landscape design, construction documents, bid administration and site supervision. As landscape architects, the firm is also responsible for site planning and coordination of landscape design with public and private development surrounding the park. Working with the developers, CRJ&A prepared site guidelines and is coordinating all site design efforts as part of planned office and residential developments.

The historical importance of the Lechmere Canal area as a center for 19th century industry has been recalled through incorporation of original details, imagery and artifacts into a contemporary design theme. The new park creates a colorful and lively focus supporting new places to shop, live, and work, as well as a new association between the City of Cambridge and its riverfront.

The park was dedicated in the fall of 1986. The project has received a 1988 Merit Award from the Boston Chapter of the American Society of Landscape Architects and a 1988 Award for Excellence from the Land and Water Conservation Fund of the National Park Service.





Lechmere Canal Park, East Cambridge, MA



**MARINE AND INDUSTRIAL DIVING, INC.**





- CONSTRUCTION PROJECTS COMPLETED WITHIN PAST TWO YEARS -

- (1) Repair of Treatment Lagoon Pond Liner; MID 397  
repair of hypalon pond liner and placement/grouting  
of articulated block mats for stabilization.

Erving, MA -- Cost \$102,000  
December 1987 - March 1988

owner: ERSECO, Inc.  
P.O. Box 248  
Erving, MA 01344  
ATTN: Raymond Smith (617) 544-3452

"GC:: Marine & Industrial Diving, Inc.

- (2) Emplacement of Electrical Conduit Arrays; MID 390  
trenching and placement of buried conduit arrays adjacent  
to granite bridge substructure and fendering.

Saugus, MA -- Cost \$62,000  
December 1987 - March 1988

owner: MBTA Contract C9CN15  
Massachusetts Bay Transportation Authority  
Regional Construction Office  
21 Arlington Avenue  
Charlestown, MA 02129  
ATTN: Mr. Howard Heywood (617) 722-5806

"GC": J.F. White Contracting Co.  
One Gateway Center  
Newton, MA 02160  
ATTN: Bill Owen (617) 593-0410

- (3) MBTA Red line Repairs; MID 354  
urethane and epoxy injection of cracks in subway tunnel walls.

Boston, MA -- Cost \$60,000  
May 1987 - March 1988

owner: MBTA Contract No. T1CN08  
Regional Construction Office  
Cabot Yard, 275 Dorchester Avenue  
South Boston, MA 02127  
ATTN: Mr. Robert Johnson (617) 722-5593

"GC": J.F. White Contracting Co.  
One Gateway Center  
Newton, MA 02160  
ATTN: Mr. Kevin Egan (617) 723-6941





- CONSTRUCTION PROJECTS COMPLETED WITHIN PAST TWO YEARS -

- (4) North Jetty Restoration, Phase II; MID 304  
concrete pile jacketing, concrete beam deck  
repair; epoxy injection.

Boston, MA -- Cost \$800,000  
May 1986 - June 1987

owner: MASSPORT Contract No. 3.111P  
Massachusetts Port Authority  
Ten Park Plaza  
Boston, MA 02116  
ATTN: David Vine (617) 973-5500

"GC": J.F. White Contracting Co.  
One Gateway Center  
Newton, MA 02160  
ATTN: Charles Levine (617) 964-0100

- (5) Substructure Repairs of Newburyport Railroad; MID 368  
granite block restoration and grouting of granite piers;  
drum pier concrete restructuring and form work.

Newburyport, MA--Cost \$504,000  
July 1987 - February 1988

owner: MASSPORT Contract No. C9CN17  
Massachusetts Bay Transportation Authority  
Regional Construction Office  
21 Arlington Avenue  
Charlestown, MA 02129  
ATTN: Kenneth Allegra (617) 722-5806

"GC": John Mahoney Construction Co.  
25 Bryant Avenue  
Milton, MA 02186  
ATTN: George Wey (617) 698-0490

- (6) Maritime Work, South Boston; MID 331  
timber pier demolition, sluice gate and epoxy injection.

South Boston, MA -- Cost \$77,000  
December 1987 - October 1987

owner: MDC Contract P80-0793-C2A  
20 Somerset Street  
Boston, MA 02108  
ATTN: John Maheu (617) 727-5264

"GC": John Mahoney Construction Company, Inc.  
25 Bryant Avenue  
Milton, MA 02108  
ATTN: George Wey (617) 698-0490





- CONSTRUCTION PROJECTS COMPLETED WITHIN PAST TWO YEARS -

(7) Steel Sheet Pile Repair; MID 327

extensive intertidal and subtidal welding of steel "Z" sheet.

Lynn, MA -- Cost \$55,000  
October 1987 - December 1987

owner: Bay Marine  
Rte. 1A  
Lynn, MA 01902  
ATTN: John Ryder (617) 593-1737

"GC": Marine & Industrial Diving, Inc.

(8) Inspection/Penetration of 1700 ft Sewer Conduit; MID 329

penetration, visual & photographic survey of 1700 feet sewer conduit under full flow conditions.

Boston, MA -- Cost \$15,000  
November 1986

owner: Massachusetts Water Resources Authority  
Charlestown Navy Yard  
100 First Avenue  
Boston, MA 02129  
ATTN: John Vetere (617) 242-6000

"GC": Vappi & Company, Inc.  
240 Sidney Street  
Cambridge, MA 02139  
ATTN: Richard Robbins (617) 661-8200

(9) Timber Fender System Restoration; MID 318

repair & installation of timber fender system on granite block seawall at Boston Fish Pier.

South Boston, MA -- Cost \$22,000  
October 1986 - November 1986

owner: Massachusetts Port Authority  
Ten Park Plaza  
Boston, MA 02116  
ATTN: Stephen Marshall (617) 973-5500

"GC": Marine & Industrial Diving, Inc.





## ENGINEERING FIRM REFERENCES

C. E. Maguire, Inc.  
60 First Avenue  
Waltham, MA 02254

contact: Mr. Klaus Schoellner, P.E. 890-0100

Fay, Spofford & Thorndike, Inc.  
191 Spring Street  
P.O. Box 802  
Lexington, MA 02173

contact: Mr. Nat Wentworth, P.E. 863-8300

Seelye, Stevenson, Value & Knecht  
125 Pearl Street  
Boston, MA 02110

contact: Mr. Larry McCluskey, P.E. 482-7293

Stone & Webster Engineering Corporation  
245 Summer Street  
Boston, MA 02107

contact: Mr. William O. Martin, P.E. 589-2097

The BSC Group  
425 Summer Street  
Boston, MA 02210

contact: Mr. Joel Williams, P.E. 330-5300

Nucci Vine Associates  
27 Green Street  
Newburyport, MA 01950

contact: Mr. David Vine, P.E. 465-1428

Bryant Associates  
648 Beacon Street  
Boston, MA 02210

contact: Mr. Howard Goldberg, P.E. 247-1800







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Telephone 617/890-0100



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